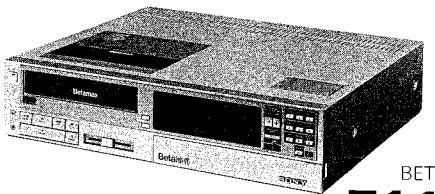
SL-2710
RMT-318

SERVICE MANUAL

US Model
Canadian Model



BETA III/II RECORD
BETA III/II/I PLAYBACK

711B CHASSIS

August, 1983

SPECIFICATIONS

Refer to separate adjustment manual, Part number 9-972-261-81.

System

Video recording system: Rotary two-head helical scanning
Audio recording system: Beta hi-fi system (2 channels) (Recording on the conventional audio track is monaural)
Video signal: EIA standard, NTSC color
Usable cassettes: Cassettes having the mark ß
ßIII : 1.33 cm/sec.
ßII : 2.0 cm/sec.
ßI : 4.0 cm/sec. (only for playback)
Maximum recording time
ßIII : 5 hours
ßII : 3 hours 20 min. (with Sony L-830 cassette)
Fast-forward and rewind time: Approx. 3½ min. (L-500)
Audio frequency response
Beta hi-fi OFF
ßII : 50 - 10,000 Hz
ßIII : 50 - 7,000 Hz
Beta hi-fi MPX FILTER OFF
ßII , ßIII : 20 - 20,000 Hz
Wow and flutter: Beta hi-fi ON: Less than 0.005% WRMS
Dynamic range: Beta hi-fi ON: More than 80 dB

Tuner section

Channel coverage: VHF channels 2 - 13
UHF channels 14 - 83
CATV channels 1 - 99
(A - 8 - W + 58, See page 10.)
VHF output signal: Channel 3 or 4 (selectable)
75 ohms, unbalanced
Antenna: 75-ohm antenna terminal for RF IN ANT/CABLE, TO CONV and AUX

Inputs and outputs

Video input: Phono jack (1)
1 V p-p ±0.5 V p-p, 75 ohms, unbalanced, sync negative
Video output: Phono jack (1)
1 V p-p ±0.5 V p-p, 75 ohms, unbalanced, sync negative
Audio input: Phono jacks (2)
−10 dBs (0 dBs = 0.775 V rms), more than 47 k ohms
Audio output: Phono jacks (2)
−10 dBs (at load impedance 47 k ohms)
More than 10 k ohms
Camera pause: Special minijack (1)
Mircophone input: Minijack (1)
−60 dBs, for low-impedance microphone
Headphone jack: Stereo minijack (1)
−26 dBs, 8 ohms

— Continued on next page —

Beta
ßVIDEO
CASSETTE RECORDER
SONY®

MICROFILM

Consumer VIDEO

Timer section

Clock	Quartz-lock system
Time indication	12-hour cycle
Timer setting	Only to start and stop recording 9 programs can be set over 21 days at max.
Power back up	Self-charging battery incorporated Back-up duration : up to 60 minutes at one time (after the battery has been charged at least 40 hours.)

General

Power requirements	120 V ac ±10%, 60 Hz ±0.5%
Power consumption	36 W (VCR) 50 W (max. with accessories)
AC outlet	Unswitched max. 400 W
Operating temperature	5°C to 40°C (41°F to 104°F)
Storage temperature	−20°C to + 65°C (4°F to + 149°F)
Dimensions	Approx. 430 × 105 × 375 mm (w/h/d) (17 × 4¼ × 14¾ inches) incl. projecting parts and controls
Weight	Approx. 11.8 kg (26 lb) net

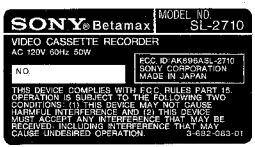
Accessories supplied

Betamax video cassette tape..... 1
75-ohm coaxial cable with F-type connectors (2 m, 6 feet) 2
Antenna connector EAC-25 1
Connecting cord RK-74A 1
Remote Commander RMT-318 with two size AA batteries 1

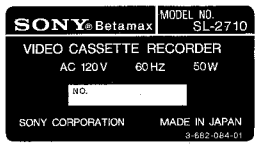
Design and specifications subject to change without notice.

MODEL IDENTIFICATION
– Specification Label –

US Model


SONY Betamax
MODEL NO. SL-2710
VIDEO CASSETTE RECORDER
AC 120V 60Hz 50W
N.O.
FCC ID AK696ASL-2710
SONY CORPORATION
MADE IN JAPAN
THIS DEVICE COMPLIES WITH F.C.C. RULES PART 15. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE THAT MAY BE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.
3-682-083-01

Canadian Model



SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
4. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
5. Check the line cord for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
6. Check the B+ voltage to see it is at the values specified.
7. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

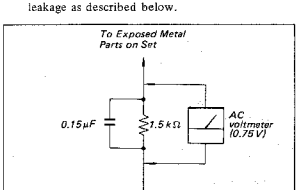


Fig. A. Using an AC voltmeter to check AC leakage.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÉS PAR UN TRAME ET UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES, LES VUES EXPLOSÉES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS MANUEL OU DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DU CIRCUIT QUI SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT SONT IDENTIFIÉS DANS CE MANUEL. SUIVRE LES PROCÉDURES QUAND LES COMPOSANTS CRITIQUES SONT REMPLACÉS OU LE FONCTIONNEMENT IMPROPRE EST SUSPECTÉ.

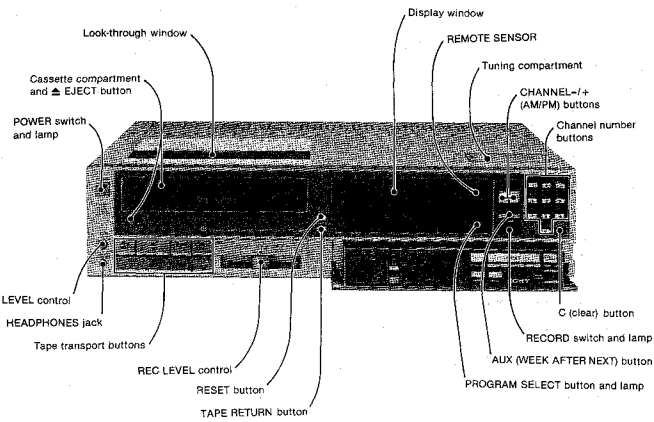
TABLE OF CONTENTS

Section	Title	Page
1.	GENERAL	
1-1.	Location and Function of Parts and Controls	6
1-2.	To Open/Close the Front Compartment	7
1-3.	New Full-Feature Beta Hi-Fi Video Cassette Recorder	7
1-4.	Setting the Clock	8
1-5.	How to Select TV Channels	9
1-6.	Programmable Antenna Switch	10
1-7.	Channel Presetting	11
1-8.	How to Record TV Programs	12
1-9.	FM Simulcast Recording	14
1-10.	How to Playback A Tape	15
1-11.	Selection of Playback Sound	17
1-12.	Timer-Activated Recording	18
1-13.	Quick Timer Recording	22
1-14.	Recording Level Adjustment	24
1-15.	Using the Time Counter	25
1-16.	Dubbing Audio	26
1-17.	To Start Recording from a Particular Point	28
1-18.	Tape Copy	28
1-19.	Repair Method for Hybrid Circuit Block	29
1-20.	Handling Precautions for MOS ICs	30
2.	DISASSEMBLY AND REPLACEMENT	
2-1.	Front Panel Removal	32
2-2.	Pocket Block Assembly Removal	32
2-3.	Power Block Removal	33
2-4.	TI-1 Board Removal	34
2-5.	AU-5 Board Removal and AF-2 Board Check	34
2-6.	VI-2 Board Removal	35
2-7.	Timer Block Removal	35
2-8.	Inside Views	36
3.	BLOCK DIAGRAMS	
3-1.	Circuit Boards Location	37
3-2.	Video System Block Diagram	38
3-3.	Video Y Block Diagram	41
3-4.	Video Chroma Block Diagram	41
3-5.	System Control Block Diagram (1)	42
3-6.	System Control Block Diagram (2)	43
3-7.	System Control Circuit and Video Circuit Interface	45
3-8.	System Control Circuit and Servo Circuit Interface	46
3-9.	System Control Circuit and Reel Motor Control Circuit Interface	47
3-10.	System Control Circuit and Mechanism Block Interface	47
3-11.	System Control Circuit and Its Peripheral Circuit Interface	49
3-12.	System Control Circuit and Audio Circuit Interface	49
3-13.	System Control Circuit and Timer/Tuner Circuit Interface	49
3-14.	Servo Block Diagram	51
3-15.	Capstan Phase System Timing Chart (REC Mode)	54
3-16.	Capstan Phase System Timing Chart (PB Mode)	55
3-17.	Capstan Speed System Timing Chart	55
3-18.	Drum Phase System Timing Chart	56
3-19.	Relationship between Motor Speed and PWM	56
3-20.	Drum Speed Phase System Timing Chart	57
3-21.	FG Circuit Timing Chart	58
3-22.	PG-A, PG-B, PG-S Timing Chart	59
3-23.	PG-A, PG-S Timing Chart (REC/PB)	59
3-24.	CTL Circuit Timing Chart	60
3-25.	Pause Timing Chart	60
3-26.	Audio Level Diagram	61
3-27.	Audio Block Diagram (1)	63
3-28.	Audio Block Diagram (2)	65
3-29.	Tuner Block Diagram	67
3-30.	Timer Block Diagram	69
3-31.	Power Supply Block Diagram	71

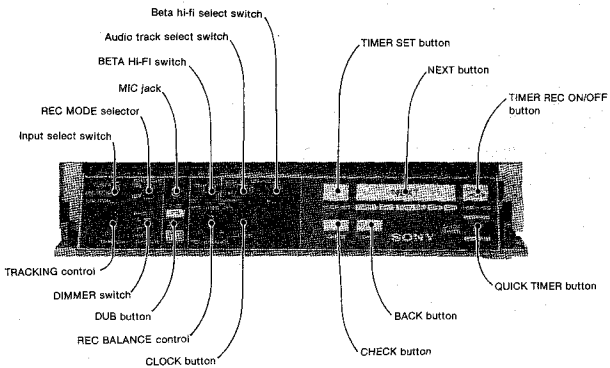
Section	Title	Page
4.	SCHEMATIC DIAGRAM AND PRINTED WIRING BOARDS	
4-1.	Fram Schematic Diagram	73
4-2.	HA-5 and VI-2 Boards	77
4-3.	RD-6, RD-9, SS-19, TR-11, LM-8, AU-5, Reel Motor and Capstan Motor Boards.	85
4-4.	FR-8, CS-3, CS-4, JK-5, N, SS-19 and SS-21 Boards	93
4-5.	PK-2, PK-3, MJ-2, AU-5, HP-4 and RV-9 Boards.	101
4-6.	AF-2 Board	108
4-7.	TU-44, TI-1, PK-4, TL-1, TL-2 and TL-3 Boards	115
4-8.	PC-6, PC-7, PC-8 and PC-10 Boards.	123
4-9.	Semiconductors.	127
4-10.	UHF/VHF Tuner Schematic Diagram	129
5.	EXPLODED VIEWS	
5-1.	Cabinet Assembly.	130
5-2.	Front Panel Assembly	131
5-3.	Timer Block Assembly	132
5-4.	Power Block Assembly	133
5-5.	Main Board Assembly	134
5-6.	Front Loading Assembly.	135
5-7.	Chassis Assembly (1)	136
5-8.	Chassis Assembly (2)	137
5-9.	Chassis Assembly (3)	138
5-10.	Chassis Assembly (4)	139
5-11.	Chassis Assembly (5)	140
5-12.	Drum Assembly	141
5-13.	Chassis Assembly (6)	142
5-14.	Reel Chassis Assembly	143
5-15.	Chassis Assembly (7)	144
6.	ELECTRICAL PARTS LIST	146
	REMOTE COMMANDER RMT-318	181

SECTION 1
GENERAL

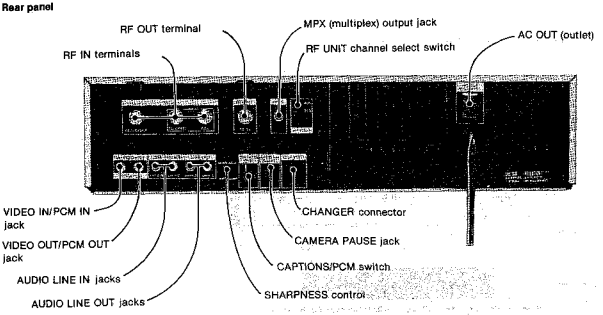
1-1. LOCATION AND FUNCTION OF PARTS AND CONTROLS



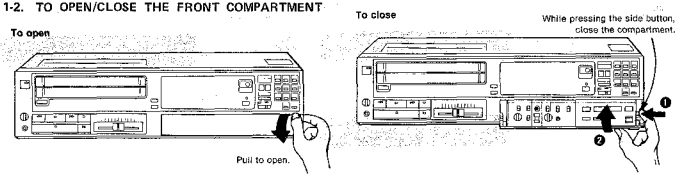
Behind front panel



Rear panel

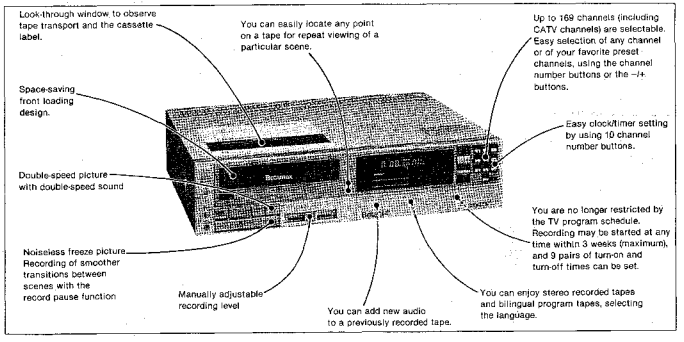


1-2. TO OPEN/CLOSE THE FRONT COMPARTMENT



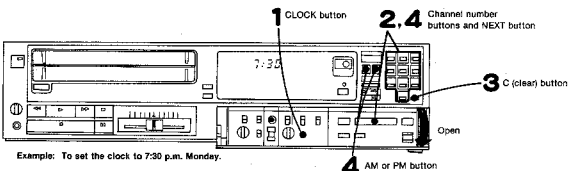
1-3. NEW FULL-FEATURE BETA HI-FI VIDEO CASSETTE RECORDER

High quality sound reproduction with low noise, minimum wow and flutter, wide dynamic range and flat frequency response is possible thanks to the Beta hi-fi recording system.


Look-through window to observe tape transport and the cassette label.
You can easily locate any point on a tape for repeat viewing of a particular scene.
Up to 169 channels (including CATV channels) are selectable. Easy selection of any channel or of your favorite preset channels, using the channel number buttons or the –/+ buttons.
Space-saving front loading design.
Easy clock/timer setting by using 10 channel number buttons.
Double-speed picture with double-speed sound
You are no longer restricted by the TV program schedule. Recording may be started at any time within 3 weeks (maximum), and 9 pairs of turn-on and turn-off times can be set.
Noiseless freeze picture Recording of smoother transitions between scenes with the record pause function
Manually adjustable recording level
You can add new audio to a previously recorded tape.
You can enjoy stereo recorded tapes and bilingual program tapes, selecting the language.

1-4. SETTING THE CLOCK

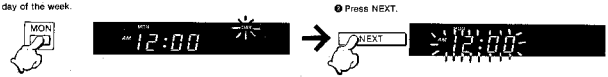
The clock can be set with the power cord plugged in, even when the power is not turned on.



Example: To set the clock to 7:30 p.m. Monday.

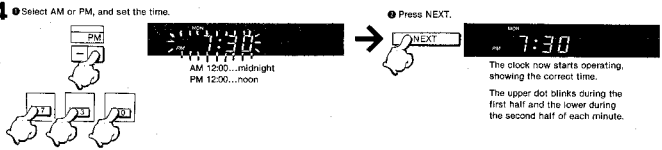
1 Press CLOCK.

2 ❶ Set the day of the week.



3 Press C (clear).

4 ❶ Select AM or PM, and set the time.



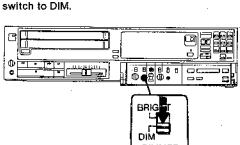
AM 12:00...midnight
PM 12:00...noon

The clock now starts operating, showing the correct time.

The upper dot blinks during the first half and the lower during the second half of each minute.

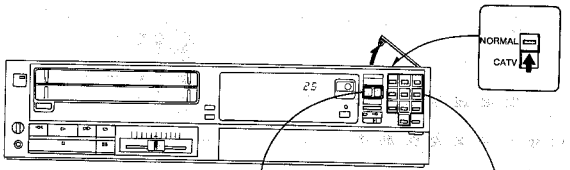
Brightness of the time display

To reduce the brightness of the time display, set the DIMMER switch to DIM.

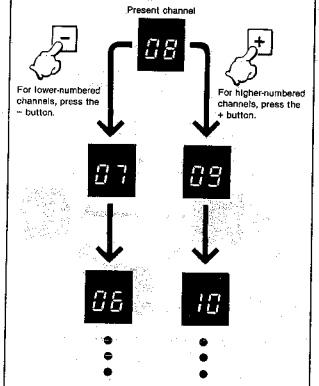


1-5. HOW TO SELECT TV CHANNELS

You can select the desired channel by pressing the appropriate channel number buttons, or by scanning higher or lower among the prememorized channels with the CHANNEL −/+ buttons.
This recorder is preset at the factory to receive VHF channels 2 through 13 with the −/+ buttons. To add UHF channels or CATV channels, or to erase inactive channels see page 11.



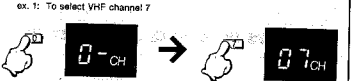
Using the −/+ buttons



Using the channel number buttons

For channels 1 through 9, press the 0 button first.

ex. 1: To select VHF channel 7

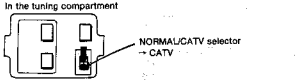


ex. 2: To select UHF channel 25

If you select an incorrect tens-digit, or forget to first press 0 for channels 1 through 9, wait about two seconds so that the previous number display is recalled, or press the C button.

TO SELECT CATV CHANNELS

In addition to normal broadcast reception of VHF channels 2 - 13 and UHF channels 14 - 83, this recorder receives CATV channels. To get the desired CATV channel, set the NORMAL/CATV selector to CATV, refer to the following chart and select the corresponding number on this recorder.



Number on this recorder	01	02	03	04	05	06	07
Corresponding CATV channel	A-8	A-7	A-6	A-5	A-4	A-3	A-2

08	09	10	11	12	13	14	15	16	17	18
A-1	A	B	C	D	E	F	G	H	I	J	K	L

19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38
M	N	O	P	Q	R	S	T	U	V	W	W+1	W+2	AA	BB

39	40	41	42	43	44	45	46	47	48	49	50	51
W+3	W+4	W+5	W+6	W+7	W+8	W+9	W+10	W+11	W+12	W+13	W+14	W+15
CC	DD	EE	FF	GG	HH	II	JJ	KK	LL	MM	NN	OO

52	53	54	55	56	57	58	59	60	61	62	63	64
W+16	W+17	W+18	W+19	W+20	W+21	W+22	W+23	W+24	W+25	W+26	W+27	W+28
PP	QQ	RR	SS	TT	UU	VV	WW	XX	YY	ZZ		

65	66	67	68	69	70	71	72	73	74	75	76	77
W+29	W+30	W+31	W+32	W+33	W+34	W+35	W+36	W+37	W+38	W+39	W+40	W+41

78	79	80	81	82	83	84	85	86	87	88	89	90
W+42	W+43	W+44	W+45	W+46	W+47	W+48	W+49	W+50	W+51	W+52	W+53	W+54

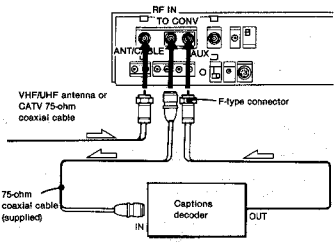
91	92	93	94
W+55	W+56	W+57	W+58

Most CATV systems use letters to designate channels but some use numbers. To tune in a numbered channel, select the same number on the recorder.
Not all CATV channels listed will be active on your particular system. Check with your local cable TV company or your nearest Sony dealer for more complete information on the available channels and the type of cable system.

1-6. PROGRAMMABLE ANTENNA SWITCH

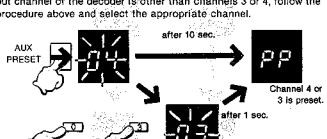
You can preset this video cassette recorder to switch from direct reception from the RF IN ANT/CABLE terminal to reception looped through an optional captions decoder by using the AUX button on the front control panel or on your Remote Commander.

CONNECTING A CAPTIONS DECODER FOR RECORDING CAPTIONED PROGRAMS

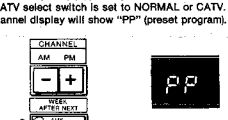


TO PRESET THE OUTPUT CHANNEL OF THE CAPTIONS DECODER

To receive captioned programs from the decoder connected to the RF IN AUX terminal, select the output channel number of the decoder, channel 3 or channel 4.
Press the AUX PRESET button.
Channel number "04" will blink in the display.
If the output channel of the decoder is channel 3, press the channel number button 0 and 3 so that "03" blinks in the display. If the output channel of the decoder is other than channels 3 or 4, follow the procedure above and select the appropriate channel.



Once you preset, you can receive a captioned program from the AUX terminal by simply pressing the AUX button, whether the NORMAL/CATV select switch is set to NORMAL or CATV.
The channel display will show "PP" (preset program).

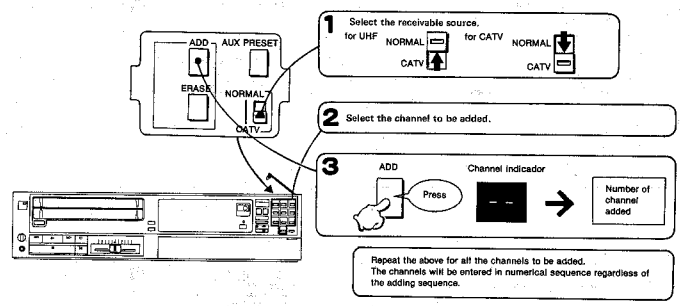


To receive a captioned program on the TV even when the recorder is turned off, press the AUX button so that the "PP" will appear in the display window.

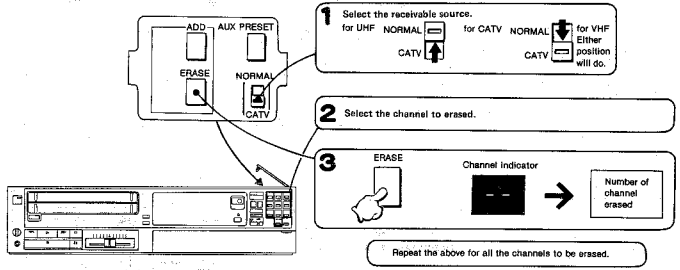
1-7. CHANNEL PRESETTING

How to preset channels to be scanned with the −/+ button on the recorder or the Remote Commander.

TO ADD UHF OR CATV CHANNELS



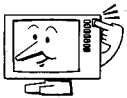
TO ERASE INACTIVE CHANNELS



Operating note : **It is not possible to erase UHF channel from the memory and retain the CATV channel of the same number in the memory, or vice versa.**
If either the UHF channel or the CATV channel of the same number is to be kept in the memory, do not erase the number.

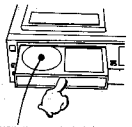
1-8. HOW TO RECORD TV PROGRAMS

1 Turn on the TV and select the channel for the video recorder.

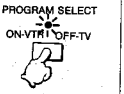


2 Turn on the recorder.

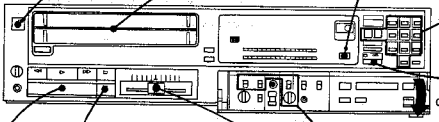
3 Insert a cassette.



4 Select the VTR mode.



5 Select the channel to be recorded with the channel number buttons or the −/+ buttons.



6 Slide to the right.

Recording starts.

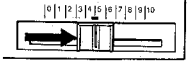
To stop the tape momentarily.
The TV program can be seen on the TV, but the picture will not be recorded.
To resume recording, press the button again.

To stop recording

To eject the cassette, press the ⏏ button.

Check before recording;

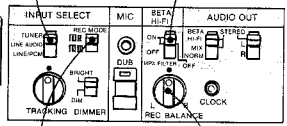
REC LEVEL control
⇨ 5*



* Green position is the standard setting position.

Input select switch
⇨ TUNER*

BETA HI-FI switch
⇨ ON*



REC MODE selector
⇨ proper position

REC BALANCE control
⇨ center

Once the recording has started, you cannot change the channel as the selected channel has been locked.

Automatic pause release
To protect the video heads and the tape, the pause mode will be automatically released after about 8 minutes and recording will resume.

Automatic rewind function
If the tape reaches the end during recording, the tape will be rewound to the beginning automatically.

In case you want to record a tape which is to be played back on another recorder from the very beginning of the tape, run the tape for about 15 seconds before starting recording. Otherwise you may miss the starting point during playback on the other machine.

RECORDING ONE TV PROGRAM WHILE VIEWING ANOTHER

You can record a TV program selected on the recorder while viewing another TV program.
1 Start recording the desired TV program following the procedure above.
2 Press the PROGRAM SELECT button so that the VTR lamp goes off.
3 Select the channel you want to view on the TV.

Cassette safety tab

TO KEEP A RECORDED PROGRAM FROM BEING ACCIDENTALLY ERASED
When a new recording is made on a previously recorded cassette, the previous recording will be automatically erased.

To avoid erasing a recording
Break off the safety tab using a screwdriver or similiar object.

To re-record on a cassette which has had its safety tab removed
Cover the hole with a piece of plastic tape.

REC MODE selector

Select the proper position according to the length of the program to be recorded.

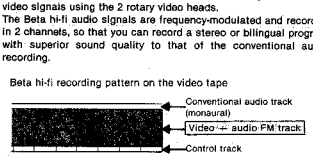
Recording time available in each mode

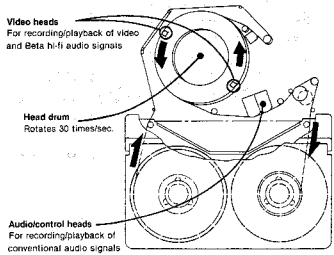
Cassette used	SII mode	SIII mode
L-125	30 min.	45 min.
L-250	1 hr.	1 hr. 30 min.
L-500	2 hr.	3 hr.
L-750	3 hr.	4 hr. 30 min.
L-830	3 hr. 20 min.	5 hr.

BETA HI-FI switch

What is BETA HI-FI recording?
In conventional recording, audio signals are recorded on the audio track and the video signals on the video track. On Beta hi-fi recording, audio signals are recorded on the video track together with the video signals using the 2 rotary video heads.
The Beta hi-fi audio signals are frequency-modulated and recorded in 2 channels, so that you can record a stereo or bilingual program with superior sound quality to that of the conventional audio recording.

Beta hi-fi recording pattern on the video tape

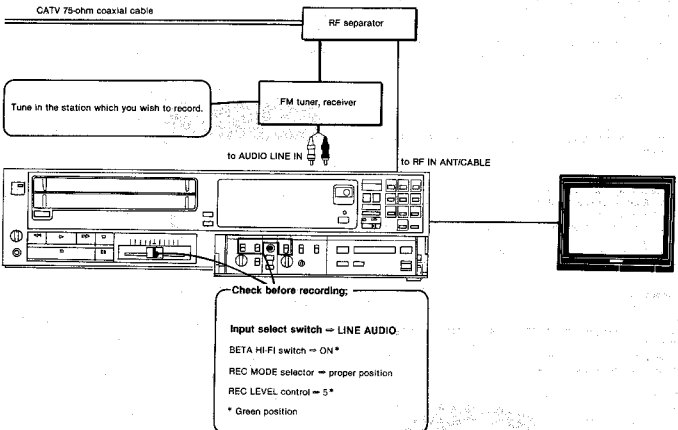



Video heads
For recording/playback of video and Beta hi-fi audio signals
Head drum
Rotates 30 times/sec.
Audio/control heads
For recording/playback of conventional audio signals and control signals.

How the SL-2710 works
At all times, the audio signal is recorded longitudinally on the conventional audio track in monaural, so that the tapes can be played back on any ordinary video cassette recorder without a Beta hi-fi system.
When the BETA HI-FI switch is ON, this recorder records audio signals on video track (Beta hi-fi recording) and on the conventional audio track at the same time.
For playback, see "SELECTION OF PLAYBACK SOUND" on page 17.

1-9. FM SIMULCAST RECORDING

By connecting an FM stereo tuner to the AUDIO LINE IN jacks besides the CATV cable connection, you can record a CATV program with stereo sound, such as MTV (music TV), whose audio signals are divided into the FM tuner from the cable.

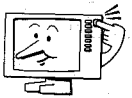

CATV 75-ohm coaxial cable
RF separator
Tune in the station which you wish to record.
FM tuner, receiver
to AUDIO LINE IN
to RF IN ANT/CABLE
Check before recording;
Input select switch ⇒ LINE AUDIO
BETA HI-FI switch ⇒ ON*
REC MODE selector ⇒ proper position
REC LEVEL control ⇒ 5*
* Green position

Note

Be sure to return the input select switch to the TUNER position after recording FM simulcast TV programs. Sound cannot be recorded when recording normal TV or CATV programs if the switch is at the LINE AUDIO position.

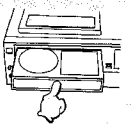
1-10. HOW TO PLAYBACK A TAPE

1 Turn on the TV and select the channel for the video recorder.



2 Turn on the recorder.

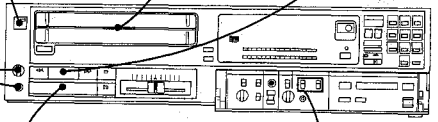
3 Insert a cassette.



With the round window to the left

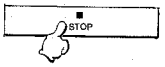
4 Press the ▶ PLAY button.

Playback will begin.



To monitor with the headphones
Connect headphones here. Volume is adjustable with the LEVEL control.

To stop playing



The program selected by the input select switch will appear on the TV screen.
If the tape reaches the end during playback, the tape will be rewound to the beginning automatically.

Check before playback;

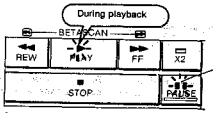
Usually set to the green position.

Audio track select switch = BETA HI-FI

Beta hi-fi select switch = STEREO

For detailed information about each position of the switches and its playback sound, see "SELECTION OF PLAYBACK SOUND" on page 17.

To get a freeze picture
Press the ❚❚ PAUSE button during normal playback or x2 playback.



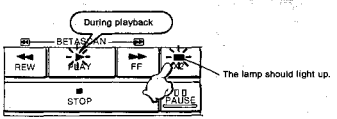
The lamp should light up.

Sound cannot be heard in the freeze picture.

Automatic pause release
To protect the video heads and the tape, the pause mode will be automatically released after about 8 minutes and recording will resume.

x2 PLAYBACK... To view double-speed picture with double-speed sound

Make sure that a playback picture appears on the screen before pressing the x2 button.



The lamp should light up.

A noise band will appear in the x2 picture.

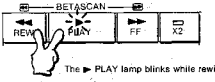
Noise will be heard in the x2 sound.

Turn the TRACKING control so that the noise band and the sound noise may be reduced.

To resume normal playback, press the x2 or ▶ button.

AUTO PLAY ... To play from the beginning of the tape after rewinding

Press the ▶ PLAY button while holding the ◀◀ REW button depressed. After the tape is completely rewound, it will automatically be played back.



The ▶ PLAY lamp blinks while rewinding.

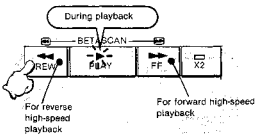
WHEN YOU PLAY BACK A TAPE RECORDED ON ANOTHER VCR

- If the VCR on which the tape was recorded is not equipped with the Beta hi-fi system, the recorder will play back the tape in the conventional way.
- If streaks or snow appear, open the front compartment and adjust the TRACKING control for the best possible picture.

Return the control to the center position after viewing that tape.

BETASCAN ... Viewing the picture at a fast speed to find a particular scene

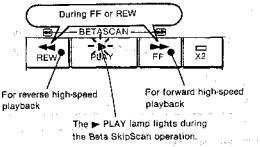
Press the ▶▶ FF or ◀◀ REW button during normal playback or x2 playback.



When you release the button, the normal playback or x2 playback will resume.

BETA SKIPSCAN ... Viewing the picture momentarily during fast-forward or rewind

Press the ▶▶ FF or ◀◀ REW button during fast-forward or rewind mode.



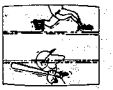
When you release the button, the fast forward or rewind mode will resume.

Streaks will appear in the Betascan picture, and more in the Beta SkipScan picture.

Sound cannot be heard during the Betascan or Beta SkipScan operation.

Notes

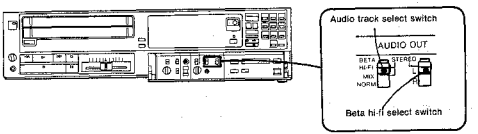
- If the picture rolls vertically, adjust the vertical hold control on the TV.



- During BETASCAN or x2 operation, the BETA HI-FI lamp may sometimes not light even when a Beta hi-fi recorded tape is played back.

1-11. SELECTION OF PLAYBACK SOUND

When a Beta hi-fi recorded tape is being played back, you can select the playback sound with the audio track select switch and the Beta hi-fi select switch.

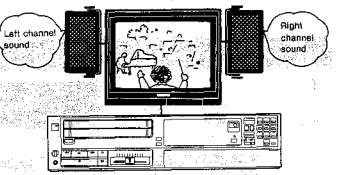


Position	Playback sound
BETA HI-FI	Beta hi-fi recorded sound
MIX	Mixed sound of Beta hi-fi and conventionally recorded sound
NORM	Conventionally recorded sound

When the tapes recorded on other video cassette recorder without a Beta hi-fi system are played back, the conventional audio track is automatically selected regardless of the switch position.

Set to the proper position to get the desired sound, when the audio track select switch is set to BETA HI-FI or MIX.

Playback of Beta hi-fi stereo sound programs
Set to STEREO.



When the recorder is connected to a Component TV, a stereo system or stereo headphones, you can enjoy stereo sound reproduction.

When a conventional (monaural) TV is connected, the sound of the left and right channels are mixed so that monaural sound comes from the TV speaker.

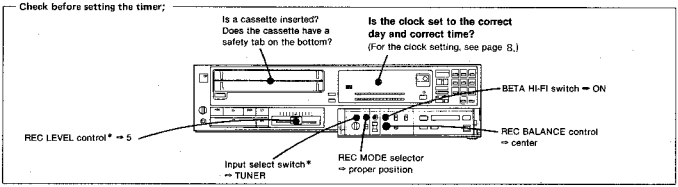
Playback of Beta hi-fi bilingual programs
Set to L or R.
Select the proper position to play back the language you wish to listen.
If you play back a bilingual tape with the switch at the STEREO position, both languages will be heard simultaneously.

Be sure to reset the switch to the green position (STEREO) after playing back Beta hi-fi bilingual programs.

1-12. TIMER-ACTIVATED RECORDING

The built-in timer permits automatic recroding of up to nine pre-selected programs, even when you are not at home. The timer can be set to operate anytime until the 3rd or (if the day of presetting is Saturday) the 2nd Saturday from the day you preset the programs.

Check before setting the timer;


Is a cassette inserted?
Does the cassette have a safety tab on the bottom?
Is the clock set to the correct day and correct time?
(For the clock setting, see page 8.)
BETA HI-FI switch ➡ ON
REC LEVEL control* ⇨ 5
REC BALANCE control ⇨ center
Input select switch* ⇨ TUNER
REC MODE selector ⇨ proper position

Note
The timer cannot be set during recording.

* When the sound source to be recorded is connected to the AUDIO LINE IN jacks, set the switch to LINE AUDIO and adjust the control.

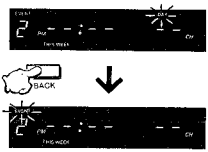
SETTING THE TIMER

The turn-on day may be a particular day of the week or every day. You need not set the nine programs all at one time.

Example : Suppose you want to set the timer to record a channel 8 broadcast from 9 : 00 p.m. to 11 : 25 p.m. on Friday next week in EVENT 3.

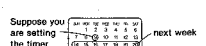
Button to be pressed	Time display The segment to be set will blink.
1	EVENT 1 will always be displayed first.
Press the corresponding button to set to the blinking indication and press NEXT.	
2 Select the event number. Press NEXT.	
3 Select the turn-on day and week. Press NEXT.	

To reset the previous steps
Press the BACK button so that the previous step indication will blink.



To record a program at the same time every-day
Press the EVERY DAY button so that all days of the week indications will blink.

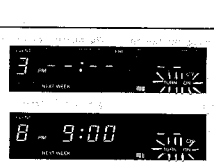
If the day you want to record is in the next week or the week after next
Press the NEXT WK or WEEK AFTER NEXT button so that the corresponding indication will blink.



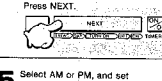
4 Select AM or PM, and set the turn-on time.

9 0 0

Press NEXT.

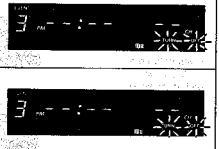


5 Select AM or PM, and set the turn-off time.



1 1 2 5

Press NEXT.



6 Select the channel to be recorded. To select channels 1 through 9 by using the channel number buttons, press the 0 button first.

0 8

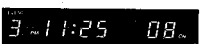
Press NEXT.

The content of EVENT 3 is automatically displayed after the NEXT button : then the time counter is displayed.

Now EVENT 3 is set. To set more events, repeat these steps.

7 Set to the timer standby mode, after all the timer settings are finished.

The TIMER REC lamp will light up unless an error was made.



The present time is displayed.

If you select an incorrect digit for the turn-on/off time setting
Press the C button so that the display will show "--:--", then press the corresponding buttons.

To record to the end of the tape
Set the turn-off time to a time after the tape will reach the end or to "--:--".

When the tape reaches the end during the timer recording, the recording stops and the until will be turned off automatically after about 30 seconds. In this case the tape will not be rewound to the beginning.

To select the channel
You can select the channel to be recorded not only with the channel number buttons, but also with the –/+ CHANNEL button.

ONCE THE TIMER REC LAMP HAS LIT UP, NO FUNCTION OF THE RECORDER CAN BE ACTIVATED, except for checking the timer setting. This is to safeguard the timer recording.

At the preset turn-on time, recording will start automatically and will stop at the preset turn-off time.

To stop the tape during timer recording
Press the TIMER REC button so that the TIMER REC lamp goes off.

To operate the recorder after the timer has been set
Press the TIMER REC button so that the TIMER REC lamp goes off.

To reactivate the timer recording standby mode
Be sure to press the TIMER REC button again.

TO CHECK THE TIMER SETTING

Press the TIMER CHECK button. Each time you press the button, the indication will change as follows :

turn-on day and time of EVENT 1 → turn-off time →

turn-on day and time of EVENT 2 → turn-off time →

turn-on day and time of EVENT 3 → turn-off time →

turn-on day and time of EVENT 9 → turn-off time →

present time *

The indicator of the channel preset for the recording will light up at the same time the turn-on time of each program is displayed, so that the channel can be checked. During timer recording, however, the channel for other timer programs cannot be checked.

* To obtain a present time during the checking procedure, turn the unit off.

TO CLEAR THE TIMER SETTING

The memory of a timer program will be automatically erased when the recording of that program is finished. A setting for everyday will not be erased, of course.

If you want to skip the timer recording preset for everyday temporarily, press the TIMER REC button so that the TIMER REC lamp goes off. To resume the timer standby mode of that program, press the button again.

If you want to erase the memory of a timer program, proceed as follows :

❶ Press the TIMER SET button.

❷ Press the corresponding channel number button to select the desired EVENT number.

❸ Press the C button.

The entire memory of this program will be erased.

To display the present time, turn the unit off.

IF THE "ERROR" INDICATOR BLINKS

If the "PROGRAMS ERROR" indicator blinks while the timer is being set

If the "DAY" indicator also blinks when the "DAY" has been set

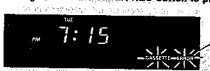
No day was selected or the selected day was not included in the possible days for setting. In the above case, it is Tuesday today.

If the "CH" indicator also blinks when the channel has been set

No channel number or improper channel number was selected.

To reset the timer
Press the BACK button and correct the above point, then proceed with the remaining steps.

If the "CASSETTE ERROR" indicator blinks and the TIMER REC indicator does not light when the TIMER REC button is pressed



Blinks.

Check the following points:
- Did you insert a cassette into the recorder?
- Does the cassette inserted have a safety tab on the bottom?
- Make sure that the tape is not at its end.

To reset the recorder into the timer standby mode
Turn on the recorder and correct the above points, then press the TIMER REC button again.

The "ERROR" indicator does not light in the following cases
When the turn-on time has been set before the present time
...Such a timer program cannot be made.
When the settings for the programs overlap
...The preceding timer program will be stopped and the following program will start even when the preceding one has not finished.

Please confirm that the turn-on time is not set before the present time whenever you set a timer program.
We recommend that you check the preset timer programs whenever you set a new timer program.

WHEN A POWER INTERRUPTION OCCURS

If the clock shows "SUN AM 12 : 00" and does not advance
All the timer settings have been erased. Reset the clock time and the timer settings.

If the clock still shows the correct time
The power has been interrupted for less than 60 minutes and the clock has been powered by the built-in self-charging battery so that the timer programs were kept in the memory. If the interruption occurs after the recording has begun, recording will be resumed when the power is restored.
- The built-in battery will be charged automatically when the ac power cord of the recorder is plugged into a wall outlet for at least 40 hours.

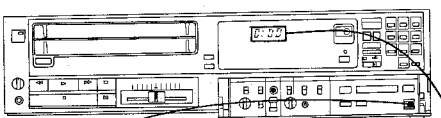
Note
If a power interruption occurs at the end of a timer program and restores in the middle of the next timer program, the recording of a former timer program may be continued to the end of the tape.

1-13. QUICK TIMER RECORDING

When you have to leave the recorder for some reason and still wish to make a recording for a certain period of time, make use of this quick timer function.
With the quick timer function, recording can be started soon at any time and stopped automatically at the preset turn-off time.

OPERATION

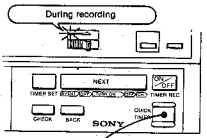
How to select recording time
Recording time can be selected in 30 minute intervals, from 30 minutes to 5 hours.



Press the QUICK TIMER button as many times as required until the desired recording time is displayed.	The display window shows :
once (QUICK TIMER)	0:00 After about 30 seconds, the recorder will be automatically turned off *.
twice (QUICK TIMER) (QUICK TIMER)	0:30 Recording starts.
eleven times ↓ twelve times	5:00 ↓ 0:00 Returns.

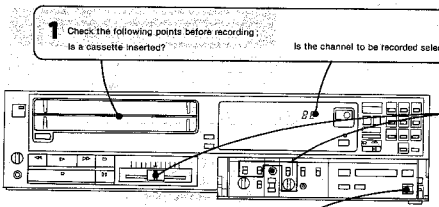
* When you press the ▶ PLAY, ▶▶ FF or ◀◀ REW button within this 30 seconds, the recorder is automatically set to the corresponding mode so that the quick timer function is cancelled, and the time counter is displayed.

When the recorder is in the recording mode



Press the QUICK TIMER button and select the recording time.

When the recorder is turned on



1 Check the following points before recording:

Is a cassette inserted?

Is the channel to be recorded selected?

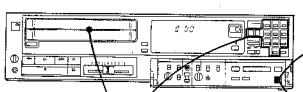
Input select switch	→ TUNER
REC MODE selector	→ proper position
BETA HI-FI switch	→ ON
REC LEVEL control	→ 5
REC BALANCE control	→ center

2 Press the QUICK TIMER button and select the recording time.

Turn off the TV before you leave.

When the recorder is turned off

Check the points in step **1** above.



1 Press the QUICK TIMER button once.

The recorder is turned on.

2 Select the desired channel, if necessary, within about 30 seconds before the unit gets turned off.

3 Press the QUICK TIMER button and select the recording time.

The recording starts and will automatically stop when the preset recording time has finished.

During quick timer recording
The display window shows the remaining recording time.

To stop the quick timer recording
Press the TIMER REC ON/OFF button.
The recording stops and the recorder will be turned off after about 30 seconds.

ONCE THE QUICK TIMER RECORDING HAS STARTED
No function button except for the following will activate :
QUICK TIMER button ... to change the recording time
CHECK button . . . to check the contents of the preset timer programs
TIMER REC ON/OFF button ... to stop recording
PAUSE button ... to stop the tape momentarily

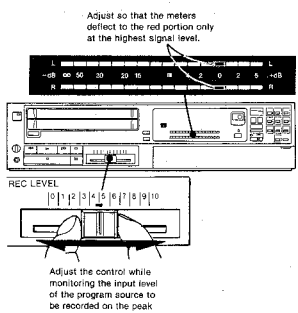
Notes
When the quick timer recording overlaps the preset timer program
The quick timer recording is continued prior to the timer program.
The QUICK TIMER button does not function while the TIMER REC lamp is lit.

When a power interruption occurs during quick timer recording
The recording stops.
It will start again when the power is supplied within about 60 minutes.

When the tape comes to an end before the preset turn-off time
The recording stops and the recorder will be automatically turned off after about 30 seconds.

1-14. RECORDING LEVEL ADJUSTMENT

When recording on Beta hi-fi system, the recording level of two channels can be adjusted with the REC LEVEL control and the sound volume of each channel can be adjusted with the REC BALANCE control.
Usually, such as when you record TV program sound, proper recording level is obtained by setting the REC LEVEL control at 5 (green position).
When you record a sound source which contains low level to high level signals, for example, sounds from microphones or audio equipment, manually adjusting the recording level may result in a better recording.
If the recording level setting is too high, the sound will distorted, and if the setting is too low, a noisy recording will result. The recording level should be set as high as possible while avoiding distortion.

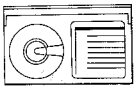

Adjust so that the meters deflect to the red portion only at the highest signal level.
L
-dB ∞ 50 30 20 15 10 7 5 3 2 0 2 5 +dB
R
REC LEVEL
0 1 2 3 4 5 6 7 8 9 10
Adjust the control while monitoring the input level of the program source to be recorded on the peak level meters.

Start recording after adjusting the record level.

1-15. USING THE TIME COUNTER

TO INDEX THE WHOLE TAPE

Before recording or playback, set the counter to "0H00M00S" by pressing the RESET button.
As the tape runs, the figures of the counter change. Note the numbers and the program being recorded or played back. Any point of the tape can thus be readily located later by referring to these numbers.



Write the counter readings you want to remember on the label of the cassette.

The counter reading is automatically reset to zero,
when a cassette is ejected and inserted again.

The time counter does not operate with brand-new tapes.
The time counter counts the CTL signals during playback or fast winding. These signals are recorded on the tape at the same time the signals are recorded on the video track.
Because new tapes have no CTL signals recorded on them, the time counter cannot operate with these tapes.
Because of the difference between the reference frequency of the time counter and the clock, the time counter indication is 3 to 4 seconds an hour behind the actual tape running time.
When fast winding the tape, the counter may count a number of seconds less than the actual time.

TO RETURN TO A PRE-REGISTERED POINT—TAPE RETURN

During recording or playback, press the RESET button at the point you later want to locate.
When the recording or playback is finished, stop the tape by pressing the ■ STOP button, then press the TAPE RETURN button.
The tape will rewind or advance to the point where the RESET button was pressed.

The tape rewinds.

Stops.

When the counter reading has a minus sign

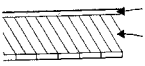
The tape advances.

Stops.

● The tape may stop a number of seconds before or after 0H00M00S.

1-16. DUBBING AUDIO

You can record additional music or commentary on any recorded tape.
The new sound is recorded on the conventional audio track so the Beta hi-fi recording and the picture remain unchanged.



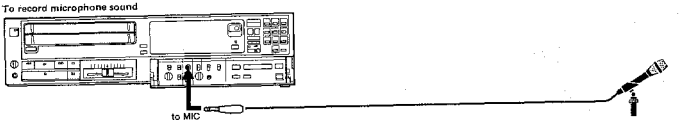
Conventional audio track : previously recorded sound will be erased and new sound will be recorded.

Video/audio FM track : Previously recorded picture and Beta hi-fi recording will remain.

CONNECTIONS

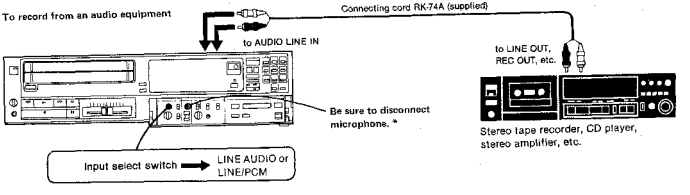
To record microphone sound

To record microphone sound



To record from an audio equipment

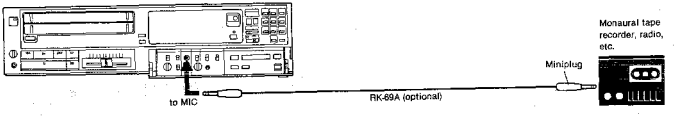
To record from an audio equipment


Connecting cord RK-74A (supplied)
to AUDIO LINE IN
to LINE OUT, REC OUT, etc.
Be sure to disconnect microphones. *
Stereo tape recorder, CD player, stereo amplifier, etc.
Input select switch
LINE AUDIO or LINE/PCM

● The sound recorded is monaural.

* When a microphone is connected to MIC jack, the audio input signals from the AUDIO LINE IN jacks are automatically disconnected.

To record from a monaural tape recorder or radio



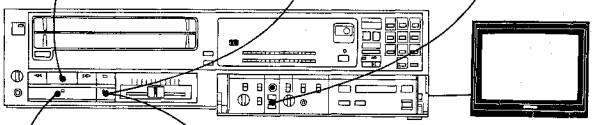
HOW TO DUB

1 Play the tape back.

2 Set to the pause mode
at the point where audio dubbing is to start.

3 Press the DUB button.

The PLAY button indication goes off.



To stop dubbing
Press the ■ STOP button.
Unplug the microphone or audio equipment.

4 Release the pause mode
and start playing the audio source.

Goes off.

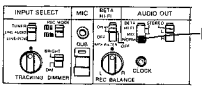
To momentarily stop the tape during dubbing
Press the ❚❚ PAUSE button.

Automatic pause release
To protect the video heads and the tape, the pause mode will be automatically released after about 8 minutes and recording will resume.

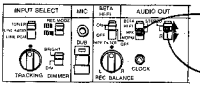
To record from the beginning of the tape
While pressing the DUB button, press the ▶ PLAY button.
Audio dubbing will start immediately.

TO MONITOR THE SOUND

To only monitor the sound being dubbed or the already dubbed sound



To simultaneously monitor both the sound being dubbed or the already dubbed sound and the previously recorded Beta hi-fi sound



1-17. TO START RECORDING FROM A PARTICULAR POINT

You can decide the starting point for recording while watching the playback picture or by searching for the point using the Betascan and Beta SkipScan functions.

1 Search for the point where you wish to start recording on the tape by playing back the tape or using the Betascan or the Beta SkipScan function.
2 Press the ❚❚ PAUSE button to stop the tape where you wish to start recording.
3 Slide the ● RECORD switch. The recorder will enter the record pause mode and the picture selected by the input select switch will appear on the monitor screen.
4 Press the ❚❚ PAUSE button to release the pause mode. Recording starts.

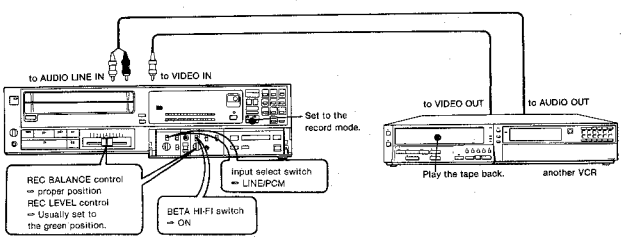
●At the starting point of recording, the picture may be distorted or streaks may appear but these are not a problem.

1-18. TAPE COPY

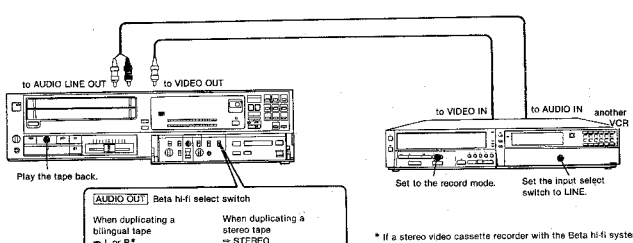
To duplicate a home movie tape you will need two video cassette recorders.

Before operating, select the appropriate recording mode (**β II** or **β III**) of the recording VCR.

To duplicate a home movie tape from another VCR to the SL-2710

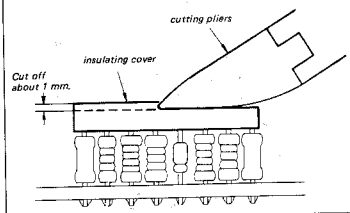


To duplicate a home movie tape from the SL-2710 to another VCR

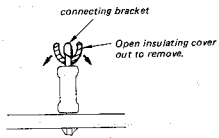

to AUDIO LINE OUT
to VIDEO OUT
Play the tape back.
to VIDEO IN
to AUDIO IN
another VCR
Set to the record mode.
Set the input select switch to LINE.
AUDIO OUT Beta hi-fi select switch
When duplicating a bilingual tape
⇨ L or R*
When duplicating a stereo tape
⇨ STEREO

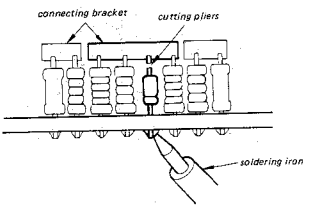
* If a stereo video cassette recorder with the Beta hi-fi system, such as SL-2700 or SL-5200, is used to record a bilingual tape, set the switch to STEREO.

1-19. REPAIR METHOD FOR HYBRID CIRCUIT BLOCK

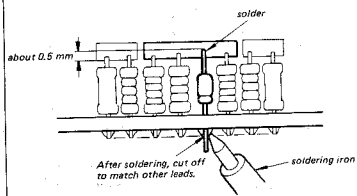


Using a cutting pliers, cut off the upper portion of the insulating cover about 1 mm, exposing the top of the connecting brackets.

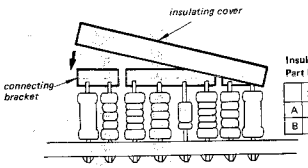




Cut off the lead of the defective part with cutting pliers. Remove solder and take out the defective part.

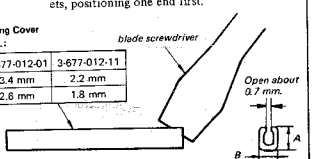


Insert the new part on the board and solder the lead to the board. Cut off the lead on the connecting bracket side so that it overlaps by about 0.5 mm, and solder to the connecting bracket.



Insulating Cover Part No.:

	3-677-012-01	3-677-012-11
A	3.4 mm	2.2 mm
B	2.6 mm	1.8 mm



Open the insulating cover groove about 0.7 mm and place over the connecting brackets, positioning one end first.

1-20. HANDLING PRECAUTIONS FOR MOS ICs

Generally, the insulation resistance of the oxide layer in MOS IC structures is very high, and the oxide layer is very thin. Because of this, it is possible that the static voltages usually present on clothes and the human body will be enough to generate a potential difference across the insulator, high enough to cause a breakdown of the insulating layer.

The following precautions should be taken while handling these ICs.

(Particular care should be taken under conditions of low humidity.)

Precautions in Replacing MOS ICs

1. Store new ICs by inserting them into a urethane-polyester cushion (which is somewhat conductive), or wrapping it in aluminum foil, so that all the pins are at the same potential.
(The ICs should be stored in that manner until mounted on the circuit board.)

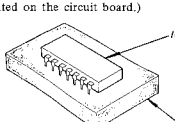


Fig. A

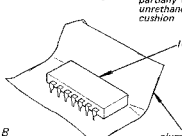


Fig. B

2. Check the soldering iron for possible power-line leakage current. Make sure that there is no leakage path by connecting an ohmmeter to the tip of the soldering iron and the plug as shown in Fig. C. If there is a leakage path, use some other soldering iron.

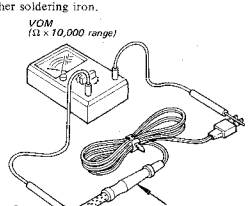


Fig. C

3. Equalize any potential difference between the clothes, the tools in use, the work bench, the set being worked on, and the packaged IC by touching them all in succession with the hands or a conductive wire or tool.

4. The following are effective methods for handling ICs that remove the potential difference across the oxide layer.
   - Use a paper clip modified by soldering in a wire braid insert.

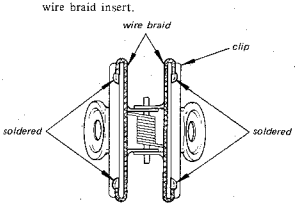


Fig. D Make sure that there is no solder on the inside.

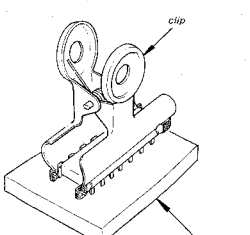


Fig. E

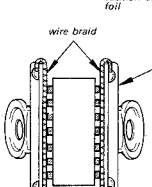


Fig. F Make sure that all the pins are in contact with the wire braid (all the pins will then be at the same potential.).

- Take a short length of fine bare wire and wind it around the IC so that it shorts all the pins of the IC, while it is still in the urethane-polyester cushion or aluminum foil. This ensures that all the pins are at the same potential.

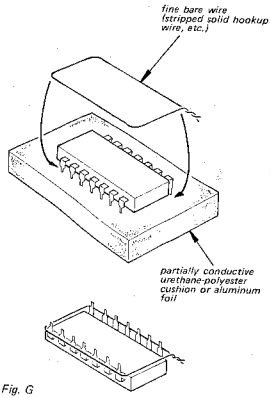


Fig. G

- When it is necessary to handle the IC with the fingers, do not touch any pin, and hold the IC at the ends of its plastic-package case as shown in Fig. H.

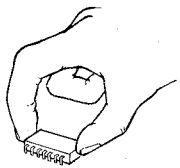


Fig. H

5. Method of Mounting
Insert the IC while holding it with the modified clip, and solder all the pins with the clip still shorting the pins. (Similarly, solder all the pins while the bare shorting wire is still wound around them.). Remove the clip or the bare shorting wire only after all the pins have been soldered.

Precaution while Checking C-MOS ICs

The C-MOS ICs (Complementary MOS) are MOS ICs that have their output sections made up of N-channel and P-channel push-pull stages to increase their speed of operation. If the output terminal of these ICs comes into contact with B+ or B– voltage, then the FET which is ON at that time will either become shorted or open.

This is valid for all the output sections that are connected together by the interconnections. Even the circuits that are physically separated (and not on the same board) can be destroyed simultaneously.

Example:

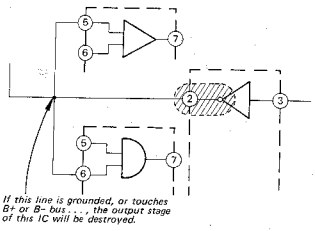
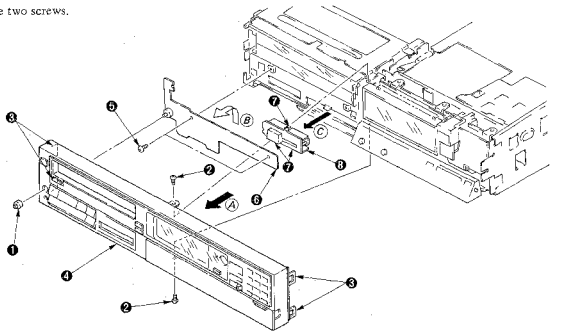


Fig. I

SECTION 2
DISASSEMBLY AND REPLACEMENT

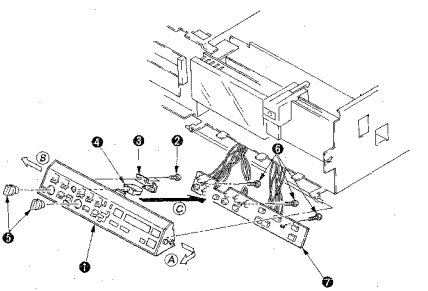
2-1. FLONT PANEL REMOVAL

❶. Remove the headphone volume-knob.
❷. Remove the two screws
❸. Disengage the four hooks.
❹. Remove the front panel in the direction of arrow Ⓐ.
❺. Remove the two screws.
❻. Remove the FR-8 board in the direction of arrow Ⓑ.
❼. Disengage the three hooks.
❽. Remove the level control block (RV-9 board) in the direction of arrow Ⓒ.



2-2. POCKET BLOCK ASSEMBLY REMOVAL

❶. Release the both side of the pocket block from the shaft in the direction of the arrow (Ⓐ , Ⓑ) in alphabetical order.
❷. Remove the two screws.
❸. Remove the microphone jack holder.
❹. Remove the MJ-2 board.
❺. Remove the two knobs.
❻. Remove the three screws.
❼. Remove the PK-2 board in the direction of arrow Ⓒ.



2-3. POWER BLOCK REMOVAL

Note: The fixing screws for the TI-1 board and the VI-2 board must be revmoved first. (Refer to "TI-1 BOARD REMOVAL" and "VI-2 BOARD REMOVAL".)

❶. Remove the two screws.

❷. Remove the power shield case.

❸. Disconnect the connector CN151 (10P) in the direction of arrow Ⓐ.

❹. Remove the two screws.

❺. Remove the HA-5 board block.

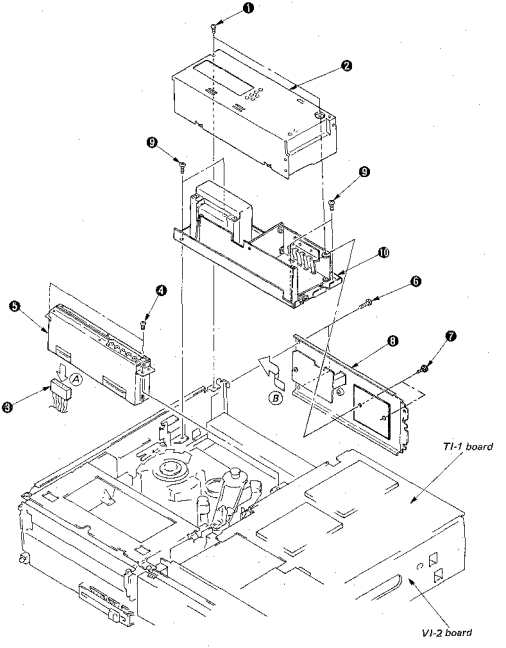
❻. Remove the two screws.

❼. Remove the two screws.

❽. Remove the power panel in the direction of arrow Ⓑ.

❾. Remove the four screws.

❿. Remove the power block.

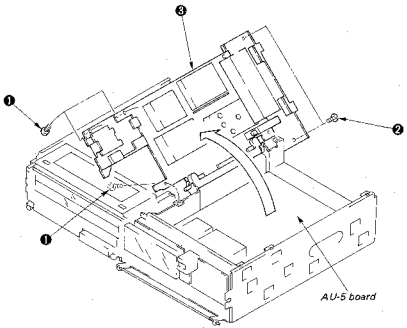


2-4. TI-1 BOARD REMOVAL

❶. Remove the three screws.

❷. Remove the two screws.

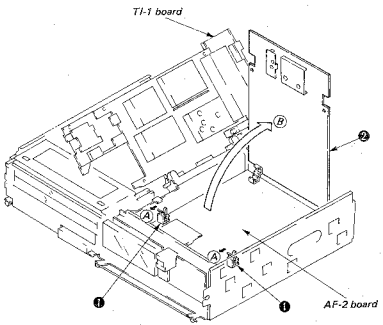
❸. Open the TI-1 board in the direction of the arrow.



2-5. AU-5 BOARD REMOVAL AND AF-2 BOARD CHECK

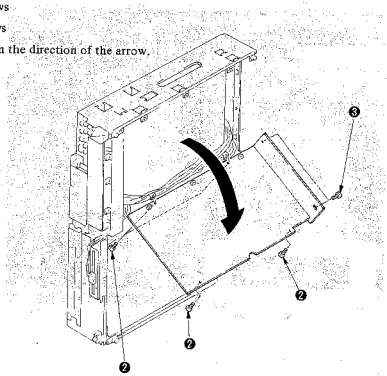
❶. Unlock the two hooks of holders in the direction of arrow Ⓐ.

❷. Open the AU-5 board in the direction of arrow Ⓑ.



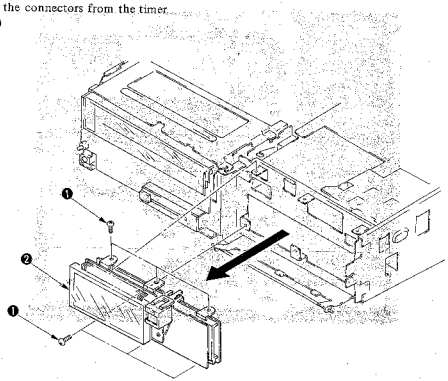
2-6. VI-2 BOARD REMOVAL

❶. Place the set upright with the left side down.
❷. Remove the four screws
❸. Remove the two screws
❹. Oepn the VI-2 board in the direction of the arrow.

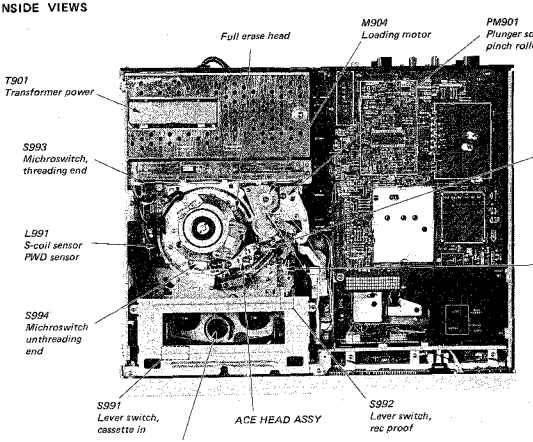


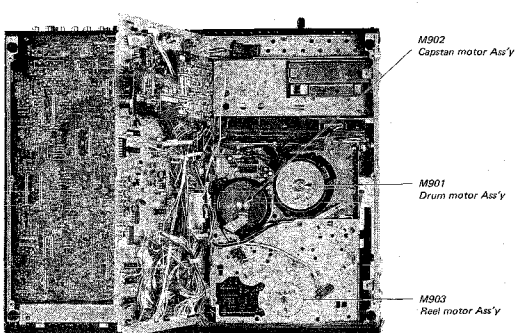
2-7. TIMER BLOCK REMOVAL

❶. Remove the six screws.
❷. Remove the timer block in the direction of the arrow. (Disconnect the connectors from the timer block, if necessary.)



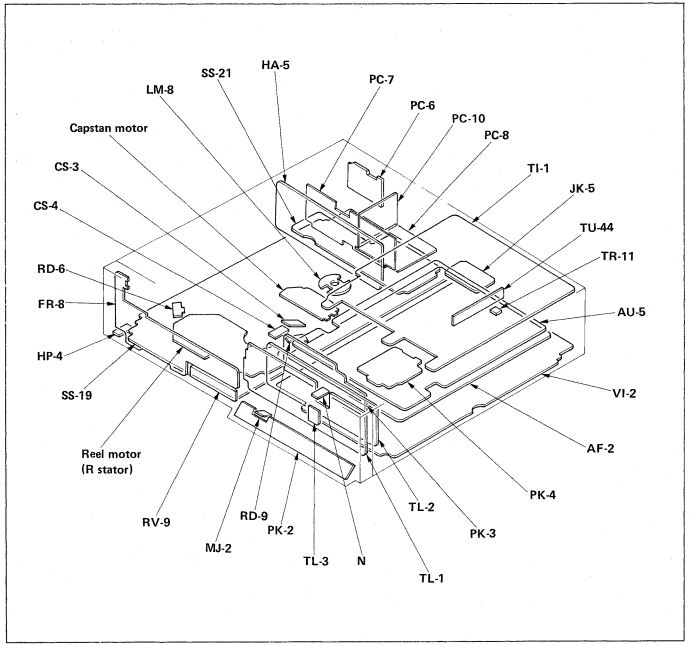
2-8. INSIDE VIEWS





SECTION 3
BLOCK DIAGRAMS

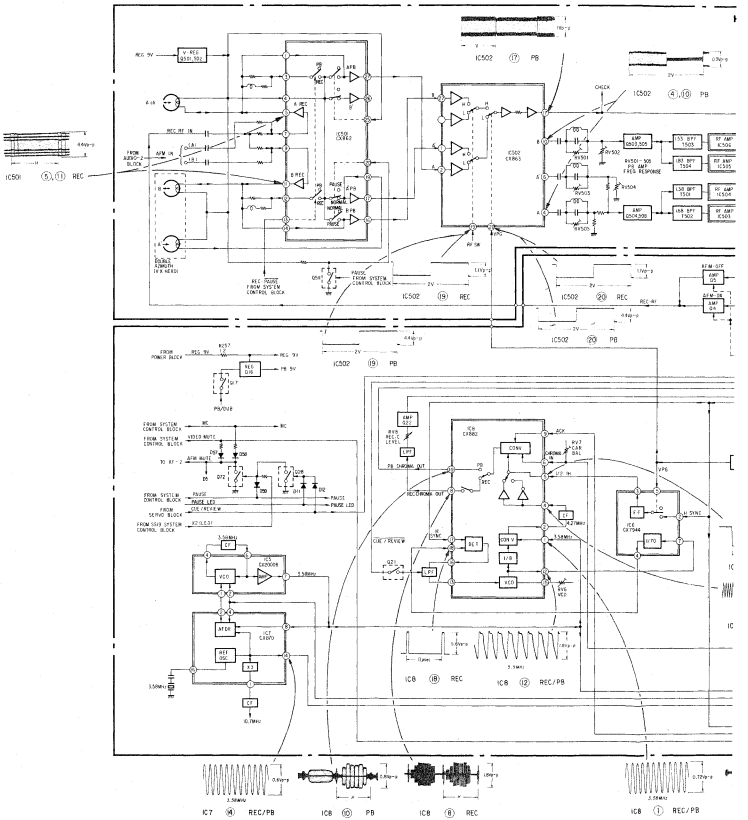
3-1. CIRCUIT BOARDS LOCATION

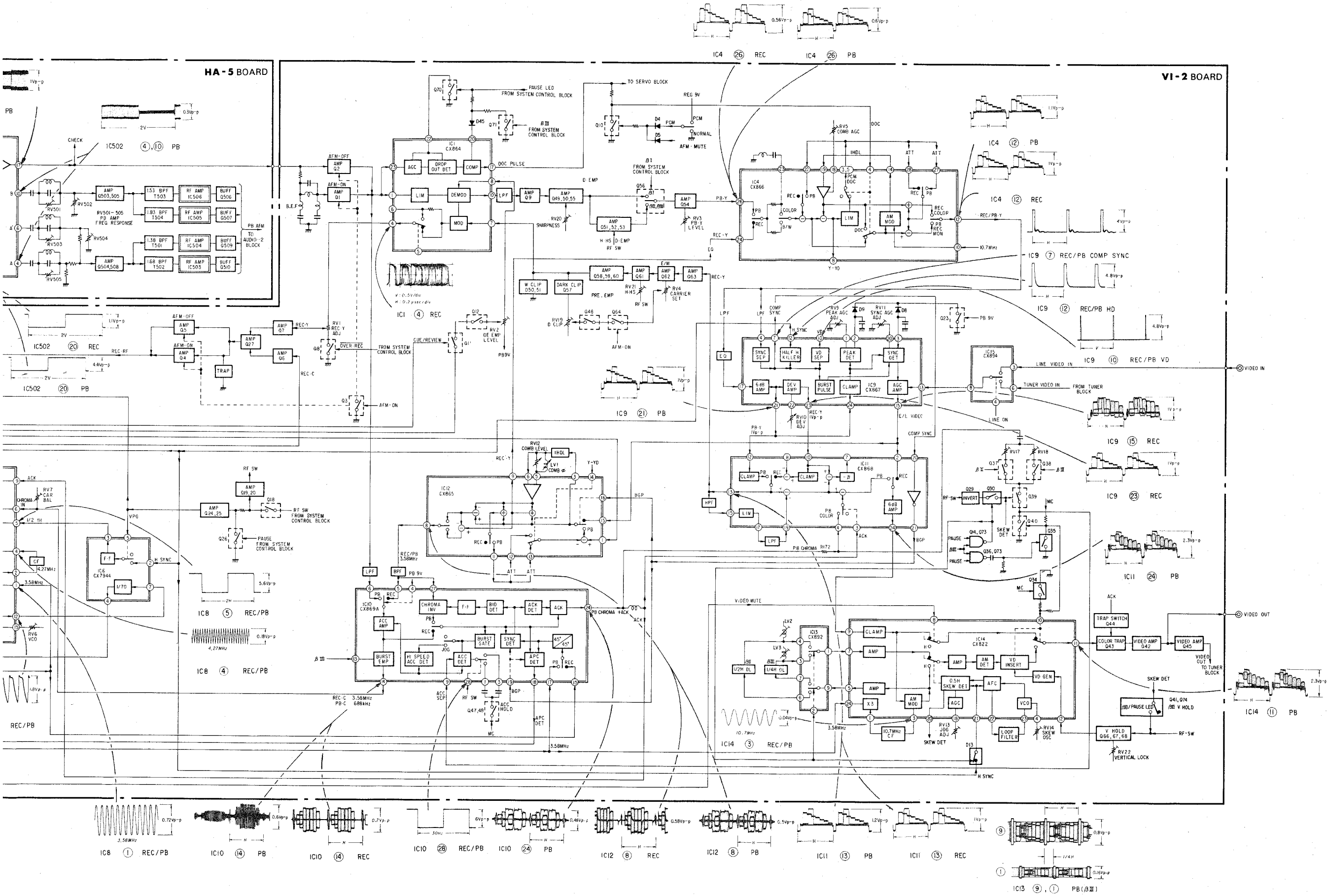


Note:

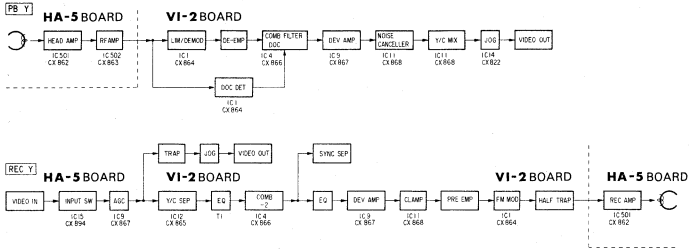
1. The SS-21 board is mounted on the SS-19 board.
2. The TU-44 board is mounted on the TI-1 board.

3-2. VIDEO SYSTEM BLOCK DIAGRAM

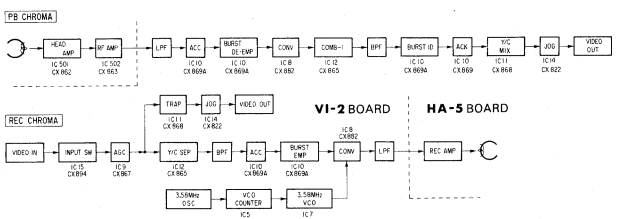



HA-5 BOARD
VI-2 BOARD

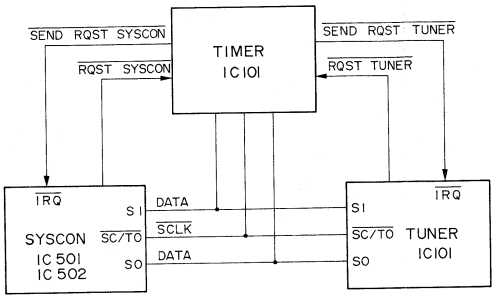
3-3. VIDEO Y BLOCK DIAGRAM



3-4. VIDEO CHROMA BLOCK DIAGRAM

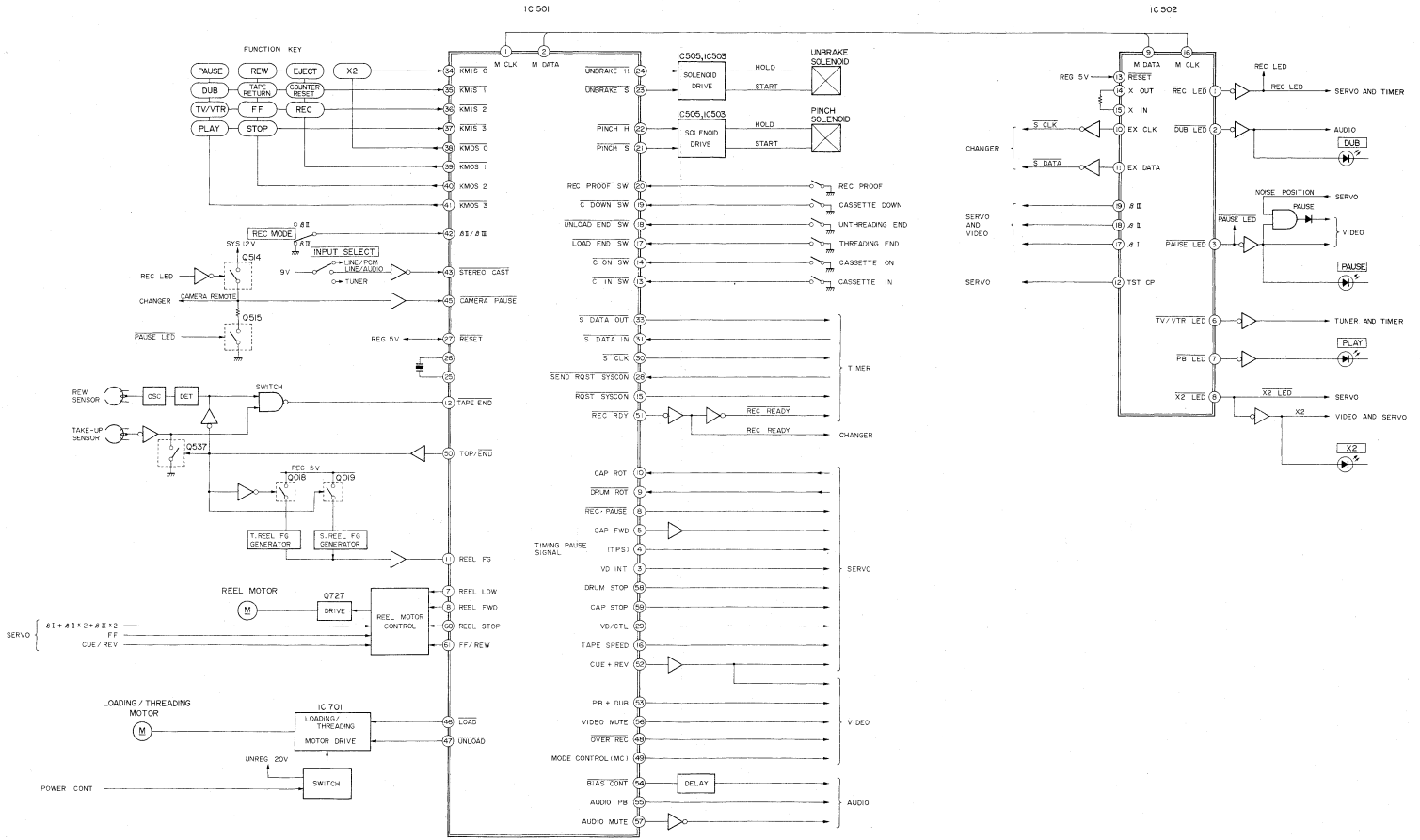


3-5. SYSTEM CONTROL BLOCK DIAGRAM (1)



3-6. SYSTEM CON

3-6. SYSTEM CONTROL BLOCK DIAGRAM (2)



3-8. SYSTEM CONTROL CIRCUIT AND SERVO CIRCUIT INTERFACE

MODE / SIGNAL	I/O	Pin No.	STOP	PB	REC	FF	REW	PICTURE SEARCH		PB PAUSE	REC PAUSE	FR SEARCH		DUB	DUB PAUSE
								CUE	REV			CUE	REV		
DRUM ROT	I	IC601 9P	H	L	L	L	L	L	L	L	L	L	L	L	L
CAP ROT	I	IC501 10P	L	H	H	L	L	H	H	L	L	L	L	H	L
VD/CTL	I	IC601 29P		CTL	VD	CTL	CTL	CTL	CTL			CTL	CTL	CTL	
VD INT	O	IC601 3P	L	H	L	L	L	H	H	H	L	H	H	H	H
TPS	O	IC501 4P	L	L	L	L	L	L	L	H	H	L	L	L	H
CAP FWD	O	IC501 5P	H	H	H	H	H	H	L	H	H	H	H	H	H
REC·PAUSE	O	IC501 8P	H	H	L	H	H	H	H	H	H	H	H	H	H
TAPE SPEED	O	IC501 16P	H	*4 H	H	H	H	L	H	*4 H	H	H	L	*4 H	*4 H
CUE + REV	O	IC501 52P	L	L	L	L	L	H	H	L	L	H	H	L	L
DRUM STOP	O	IC501 58P	H	L	L	L	L	L	L	L	L	L	L	L	L
CAP STOP	O	IC501 59P	H	L	L	H	H	L	L	H	H	H	H	L	H
FF/REW	O	IC501 61P	L	L	L	H	H	L	L	L	L	H	H	L	L
REC LED	O	IC502 1P	H	H	L	H	H	H	H	H	L	H	H	H	H
X2 LED	O	IC502 8P	H	*5 H	H	H	H	H	H	*6 H	H	H	H	H	H
TST CP	O	IC502 12P													
βI	O	IC502 17P	L	*2	L	L	L	*3	*3	*3	L	L	L	*2	*2
βII	O	IC502 18P	*1	*2	*1	*1	*1	*3	*3	*3	*1	*1	*1	*2	*2
βIII	O	IC502 19P	*1	*2	*1	*1	*1	*3	*3	*3	*1	*1	*1	*2	*2

*1. by Speed selector
*2. by recorded tape
*3. holds the previous level
*4. "L" when in X2 and βI mode
*5. "L" when in X2 mode

3-7. SYSTEM CONTROL CIRCUIT AND VIDEO CIRCUIT INTERFACE

MODE / SIGNAL	I/O	Pin No.	STOP	PB	REC	FF	REW	PICTURE SEARCH CUE	PICTURE SEARCH REV	PB PAUSE	REC PAUSE	FR SEARCH CUE	FR SEARCH REV	DUB	DUB PAUSE
$\overline{\text{OVER REC}}$	O	IC501 48P	H	H	*6H	H	H	H	H	H	H	H	H	H	H
MC	O	IC501 49P	L	*4L	L	L	L	H	H	H	L	H	H	L	H
CUE + REV	O	IC501 52P	L	L	L	L	L	H	H	L	L	H	H	L	L
PB + DUB	O	IC501 53P	L	H	L	L	L	H	H	H	L	H	H	H	H
VIDEO MUTE	O	IC501 56P	L	L	L	L	L	L	L	L	L	L	L	L	L
$\overline{\text{PAUSE LED}}$	O	IC502 3P	H	H	H	H	H	H	H	L	L	H	H	H	L
X2 LED	O	IC502 8P	H	*5H	H	H	H	H	H	*5H	H	H	H	H	H
βI	O	IC502 17P	L	*2	L	L	L	*3	*3	*3	L	L	L	*2	*2
βII	O	IC502 18P	*1	*2	*1	*1	*1	*3	*3	*3	*1	*1	*1	*2	*2
βIII	O	IC502 19P	*1	*2	*1	*1	*1	*3	*3	*3	*1	*1	*1	*2	*2
$\overline{\text{REC-PAUSE}}$	O	CN207 1P	L	L	H	L	L	L	L	L	L	L	L	L	L
PAUSE	O	CN255 1P	L	L	L	L	L	L	L	H	L	L	L	L	H

*1. by Speed selector
*2. by recorded tape
*3. holds the previous level
*4. "H" when in X2 mode
*5. "L" when in X2 mode
*6. "L" is appear during 12 sec in strong signal recording for splicing

3-9. SYSTEM CONTROL CIRCUIT AND REEL MOTOR CONTROL CIRCUIT INTERFACE

MODE / SIGNAL	I/O	Pin No.	EJECTED	LOADING	THREADING	STOP	UNTHREADING	UNLOADING	FF	REW	PB	PB PAUSE	PICTURE SEARCH CUE	PICTURE SEARCH REV	REC PAUSE	REC	DUB PAUSE	DUB	FR SEARCH CUE	FR SEARCH REV
REEL FG	I	IC501 11P																		
REEL FWD	O	IC501 6P	H/L	H/L	H	H	L	L	H	L	H	H	H	L	H	H	H	H	H	L
REEL LOW	O	IC501 7P	H/L	H/L	H	L	H	L	L	L	H	H	L	L	H	H	H	H	H	H
$\overline{\text{UNLOAD}}$	O	IC501 47P	H	H	H	H	L	L	H	H	H	H	H	H	H	H	H	H	H	H
REEL STOP	O	IC501 60P	H	H	L	H	L	H	L	L	L	H	L	L	L	H	L	H	L	L
FF/REW	O	IC501 61P	L	L	L	L	L	L	H	H	L	L	L	L	L	L	L	L	H	H
βI + βIIx2 + βIIIx2	O	CN205 1P	L	L	L	L	L	L	L	L	*1 L	*1 L	L	L	L	L	*2 L	*2 L	L	L
FF	O	CN205 2P	L	L	L	L	L	L	H	L	L	L	L	L	L	L	L	L	H	L
CUE/REV	O	CN205 3P	L	L	L	L	L	L	L	L	L	L	H	H	L	L	L	L	L	L

*1. "H" when in X2 and βI mode
*2. "H" when in βI mode

3-10. SYSTEM CONTROL CIRCUIT AND MECHANISM BLOCK INTERFACE

MODE / SIGNAL	I/O	Pin No.	EJECTED	LOADING	THREADING	STOP	UNTHREADING	UNLOADING	FF	REW	PB	PB PAUSE	PICTURE SEARCH CUE	PICTURE SEARCH REV	REC	REC PAUSE	DUB	DUB PAUSE	FR SEARCH CUE	FR SEARCH REV
$\overline{\text{C IN SW}}$	I	IC501 13P	H	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
$\overline{\text{C ON SW}}$	I	IC501 14P	H	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
$\overline{\text{LOAD END SW}}$	I	IC501 17P	H	H	H	L	H	H	L	L	L	L	L	L	L	L	L	L	L	L
$\overline{\text{UNLOAD END SW}}$	I	IC501 18P	L	L	H	H	H	L	H	H	H	H	H	H	H	H	H	H	H	H
$\overline{\text{C DOWN SW}}$	I	IC501 19P	H	H	L	L	L	H	L	L	L	L	L	L	L	L	L	L	L	L
$\overline{\text{REC PROOF SW}}$	I	IC501 20P	H	H	H/L	H/L	H/L	H	H/L	H/L	H/L	H/L	H/L	H/L	L	L	L	L	H/L	H/L
$\overline{\text{PINCH S}}$	O	IC501 21P	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
$\overline{\text{PINCH H}}$	O	IC501 22P	H	L	H	H	H	L	H	H	L	L	L	L	L	L	L	L	H	H
$\overline{\text{UNBRK S}}$	O	IC501 23P	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
$\overline{\text{UNBRK H}}$	O	IC501 24P	H	H	H	H	H	L	L	L	H	L	L	L	H	L	H	L	L	L
$\overline{\text{LOAD}}$	O	IC501 46P	H	L	L	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
$\overline{\text{UNLOAD}}$	O	IC501 47P	H	H	H	H	L	L	H	H	H	H	H	H	H	H	H	H	H	H

3-11. SYSTEM CONTROL CIRCUIT AND ITS PERIPHERAL CIRCUIT INTERFACE

SIGNAL \ MODE	I/O	Pin No.	STOP	PB	REC	FF	REW	PICTURE SEARCH CUE	PICTURE SEARCH REV	PB PAUSE	REC PAUSE	FR SEARCH CUE	FR SEARCH REV	DUB	DUB PAUSE
SEND RQST	I	IC501 28P													
S CLK	I/O	IC501 30P													
S DATA IN	I	IC501 31P													
RQST-SYS	O	IC501 15P													
S DATA OUT	O	IC501 33P													
REC READY	O	IC501 51P	L	H	L	L	L	H	H	H	L	H	H	H	H
$\overline{\text{REC LED}}$	O	IC502 1P	H	H	L	H	H	H	H	H	L	H	H	H	H
$\overline{\text{TV/VTR LED}}$	O	IC502 6P													

3-12. SYSTEM CONTROL CIRCUIT AND AUDIO CIRCUIT INTERFACE

SIGNAL \ MODE	I/O	Pin No.	STOP	PB	REC	FF	REW	PICTURE SEARCH CUE	PICTURE SEARCH REV	PB PAUSE	REC PAUSE	FR SEARCH CUE	FR SEARCH REV	DUB	DUB PAUSE
$\overline{\text{BIAS CONT}}$	O	IC501 54P	H	H	L	H	H	H	H	H	H	H	H	L	H
AUDIO PB	O	IC501 55P	L	H	L	L	L	H	H	H	L	H	H	L	L
A MUTE	O	IC501 57P	H	*4 L	L	H	H	H	H	H	H	H	H	L	H
$\overline{\text{DUB LED}}$	O	IC502 2P	H	H	H	H	H	H	H	H	H	H	H	L	L
βI	O	IC502 17P	L	*2	L	L	L	*3	*3	*3	L	L	L	*2	*2
βII	O	IC502 18P	*1	*2	*1	*1	*1	*3	*3	*3	*1	*1	*1	*2	*2
βIII	O	IC502 19P	*1	*2	*1	*1	*1	*3	*3	*3	*1	*1	*1	*2	*2

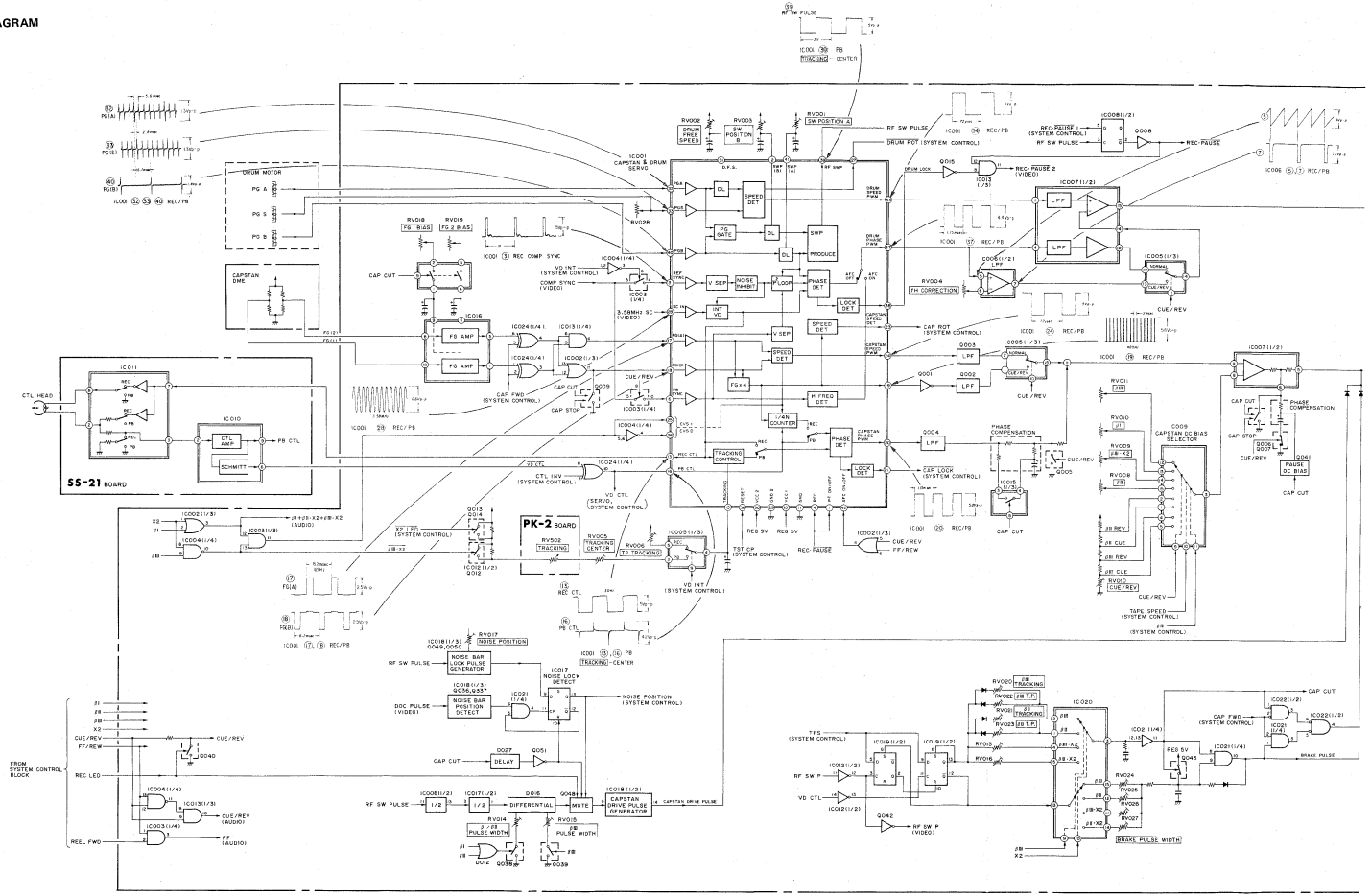
*1. by speed selector
*2. by recorded tape
*3. holds the previous level
*4. "H" when in X2 mode

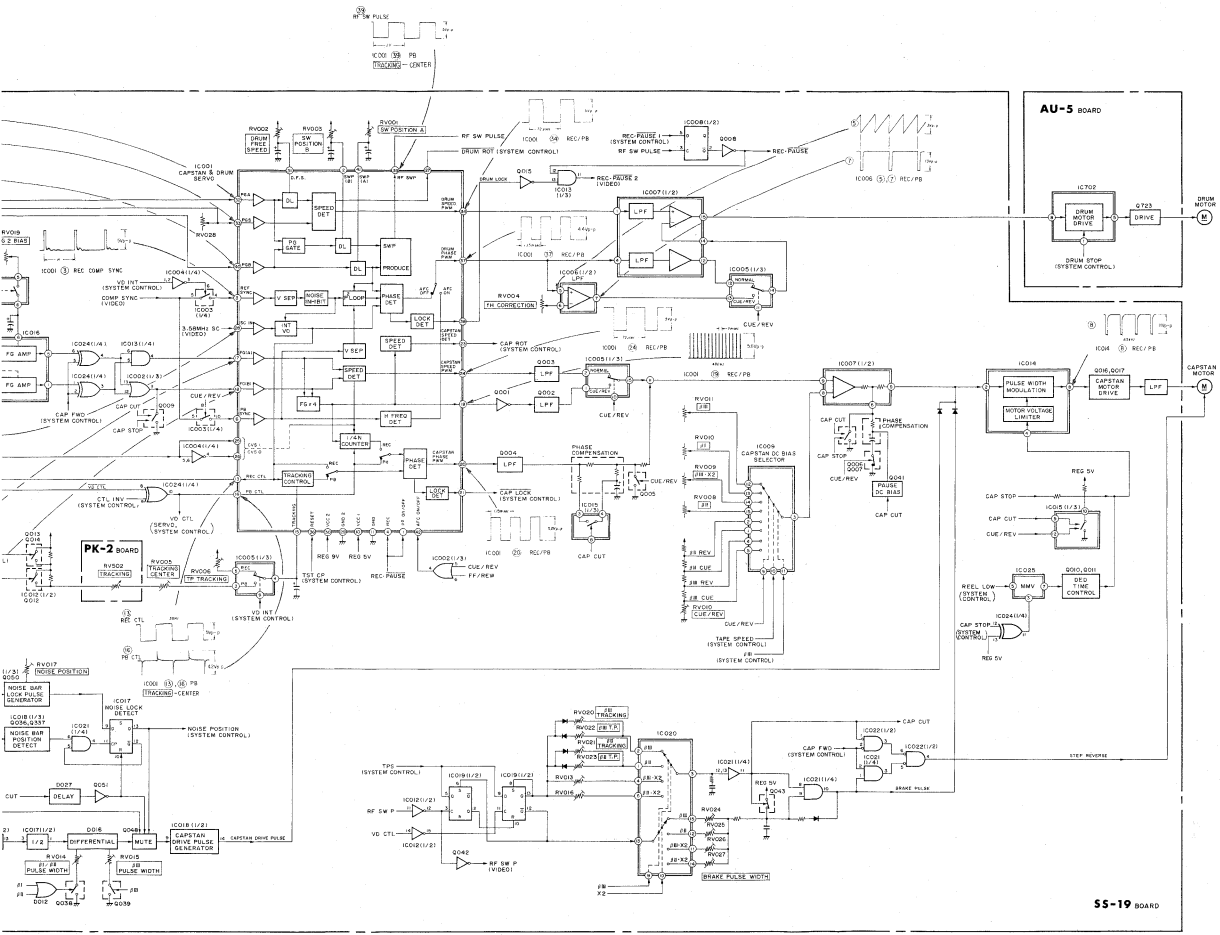
3-13. SYSTEM CONTROL CIRCUIT AND TIMER/TUNER CIRCUIT INTERFACE

SIGNAL \ MODE	I/O	Pin No.	EJECTED	LOADING	THREADING	STOP	UNTHREADING	UNLOADING	FF	REW	PB	PB PAUSE	PICTURE SEARCH CUE	PICTURE SEARCH REV	REC	REC PAUSE	DUB	DUB PAUSE	FR SEARCH CUE	FR SEARCH REV
$\overline{\text{CAMERA PAUSE}}$	I	IC501 45P	L	L	L	L	L	L	L	L	L	L	L	L	H	H	L	L	L	L
$\overline{\text{TAPE END}}$*1	I	IC501 12P	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H	H
TOP/$\overline{\text{END}}$	O	IC501 50P	H	H	H	H	H	H	L	H	L	L	L	H	L	L	L	L	L	H
$\overline{\text{REC LED}}$	O	IC502 1P	H	H	H	H	H	H	H	H	H	H	H	H	L	L	H	H	H	H
$\overline{\text{PAUSE LED}}$	O	IC502 3P	H	H	H	H	H	H	H	H	H	L	H	H	H	L	H	L	H	H

*1. "L" at tape end

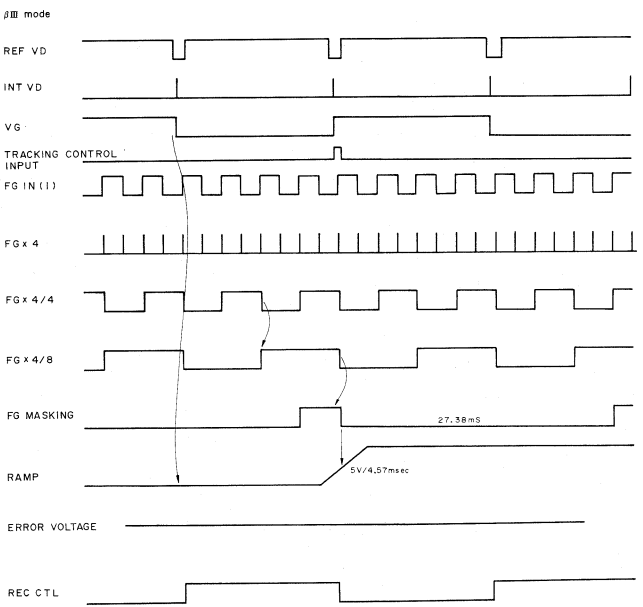
3-14. SERVO BLOCK DIAGRAM



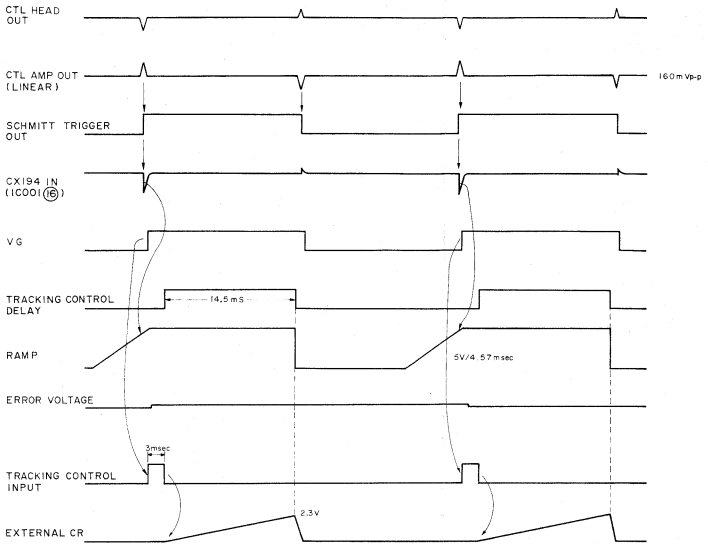

AU-5 BOARD
PK-2 BOARD
SS-19 BOARD
IC001 CAPSTAN & DRUM SERVO
IC702 DRUM MOTOR DRIVE
Q723 DRIVE
DRUM MOTOR
DRUM STOP (SYSTEM CONTROL)
IC014 PULSE WIDTH MODULATION / MOTOR VOLTAGE LIMITER
Q016, Q017 CAPSTAN MOTOR DRIVE
LPF
CAPSTAN MOTOR
RF SW PULSE
DRUM ROT (SYSTEM CONTROL)
REC-PAUSE (SYSTEM CONTROL)
REC-PAUSE
REC-PAUSE 2 (VIDEO)
CUE/REV
CAP ROT (SYSTEM CONTROL)
CAP LOCK (SYSTEM CONTROL)
PHASE COMPENSATION
CAPSTAN DC BIAS SELECTOR
TAPE SPEED (SYSTEM CONTROL)
CAP FWD (SYSTEM CONTROL)
CAP STOP
CAP CUT
REEL LOW (SYSTEM CONTROL)
REG 5V
BRAKE PULSE WIDTH
STEP REVERSE
BRAKE PULSE
NOISE BAR LOCK PULSE GENERATOR
NOISE BAR POSITION DETECT
NOISE LOCK DETECT
NOISE POSITION (SYSTEM CONTROL)
CAPSTAN DRIVE PULSE GENERATOR
CAPSTAN DRIVE PULSE
DIFFERENTIAL
MUTE
DELAY
TRACKING CONTROL
TRACKING CENTER
TP TRACKING
REC CTL
PB CTL
VD INT (SYSTEM CONTROL)
VD CTL (SERVO, SYSTEM CONTROL)
TPS (SYSTEM CONTROL)
RF SW P (VIDEO)
FG AMP
SPEED DET
PHASE DET
LOCK DET
H FREQ DET
1/4N COUNTER
PULSE DC BIAS
DED TIME CONTROL
MMV

3-15. CAPSTAN PHASE SYSTEM TIMING CHART (REC MODE)

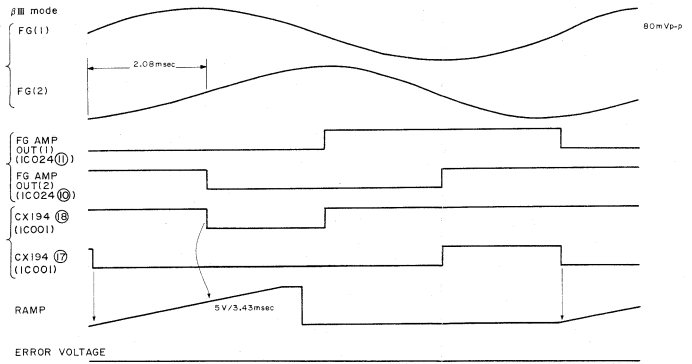
	FG	4FG	COUNT DOWN FG
βI	360Hz	1440Hz → 1/16 →	90Hz
βII	180Hz	720Hz → 1/8 →	90Hz
βIII	120Hz	480Hz → 1/8 →	60Hz



3-16. CAPSTAN PHASE SYSTEM TIMING CHART (P/B MODE)



3-17. CAPSTAN SPEED SYSTEM TIMING CHART



3-18. DRUM PI

PG(B)

PG B PUL

PG DL (Bch

REF VD

INT VD

VG

VG DL

RAMP

RFSW

PHASE ER VOLTAGE

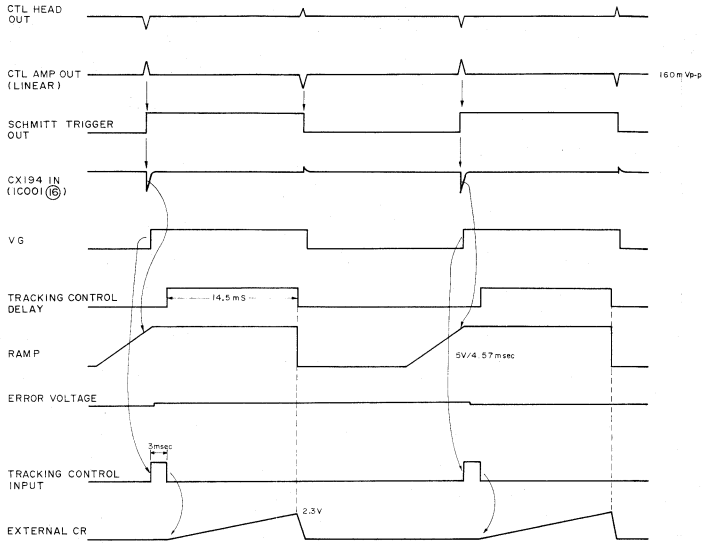
3-19. RELATIO

PWM OUT

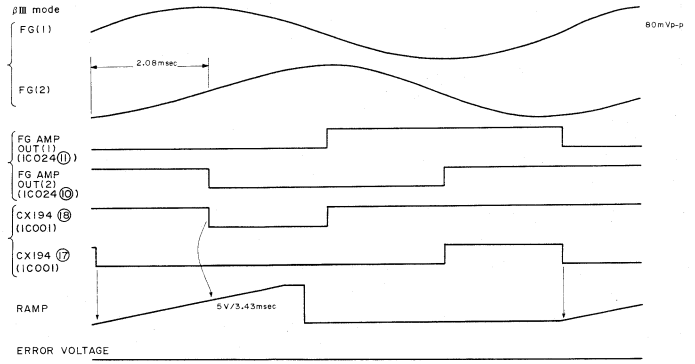
LPF OUTI

SLC

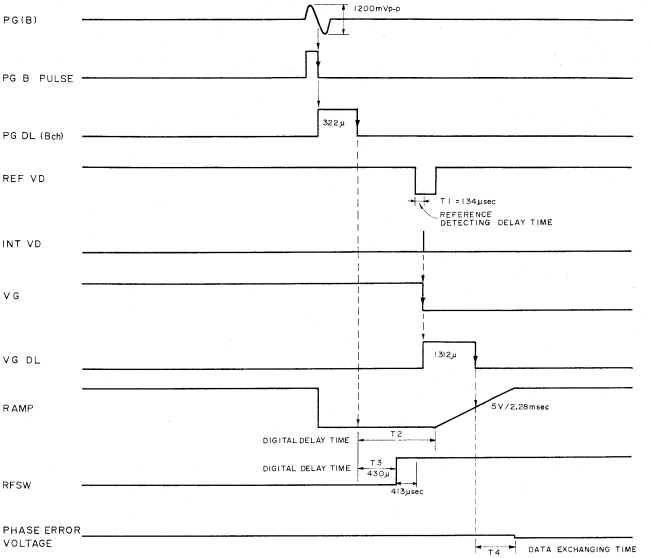
3-16. CAPSTAN PHASE SYSTEM TIMING CHART (P/B MODE)



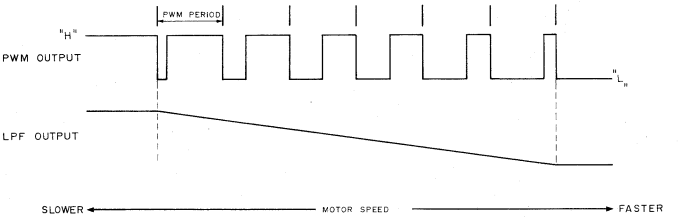
3-17. CAPSTAN SPEED SYSTEM TIMING CHART



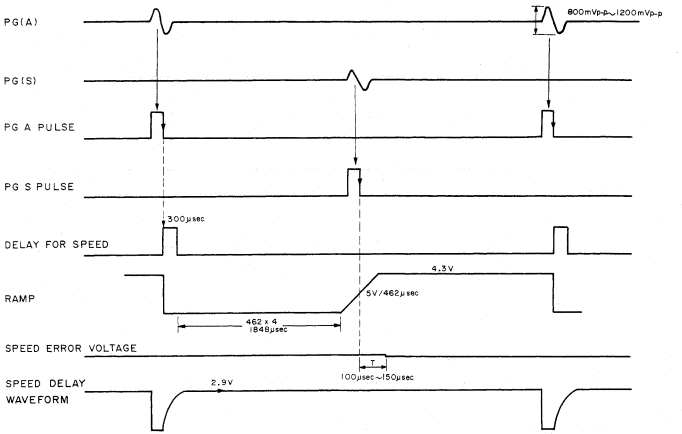
3-18. DRUM PHASE SYSTEM TIMING CHART



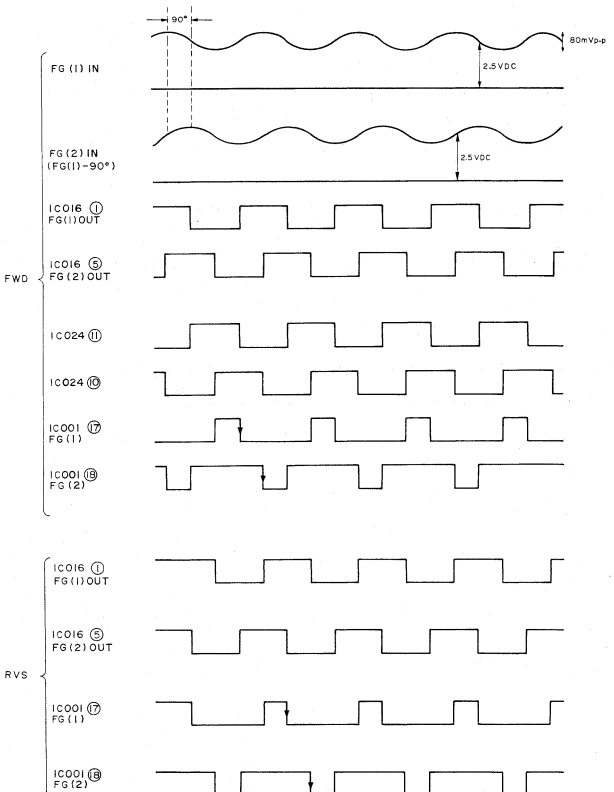
3-19. RELATIONSHIP BETWEEN MOTOR SPEED AND PWM



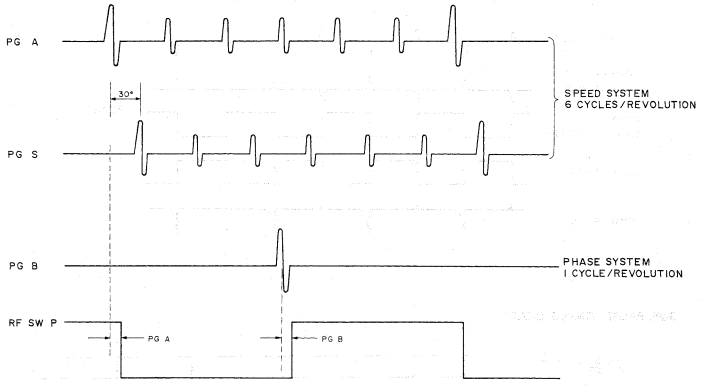
3-20. DRUM SPEED PHASE SYSTEM TIMING CHART



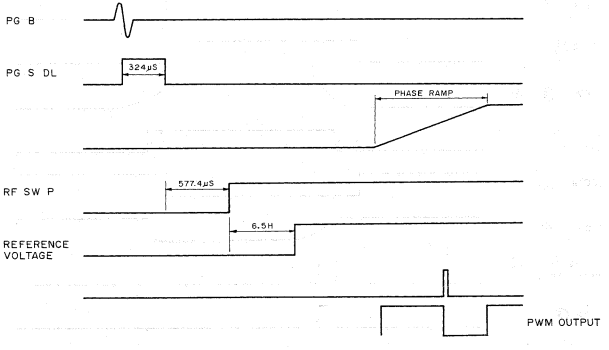
3-21. FG CIRCUIT TIMING CHART



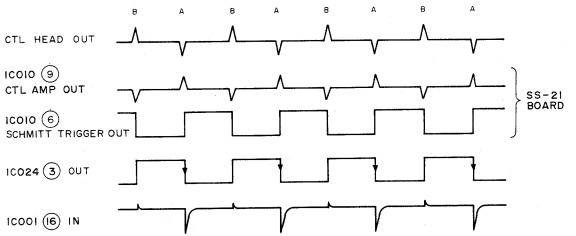
3-22. PG-A, PG-B, PG-S TIMING CHART



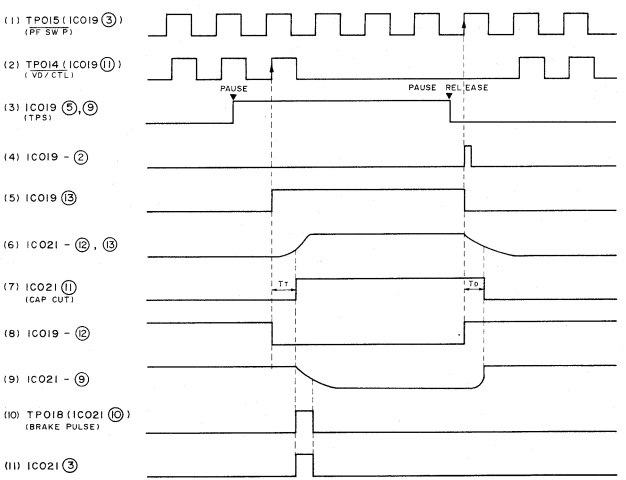
3-23. PG-A, PG-S TIMING CHART (REC/PB)



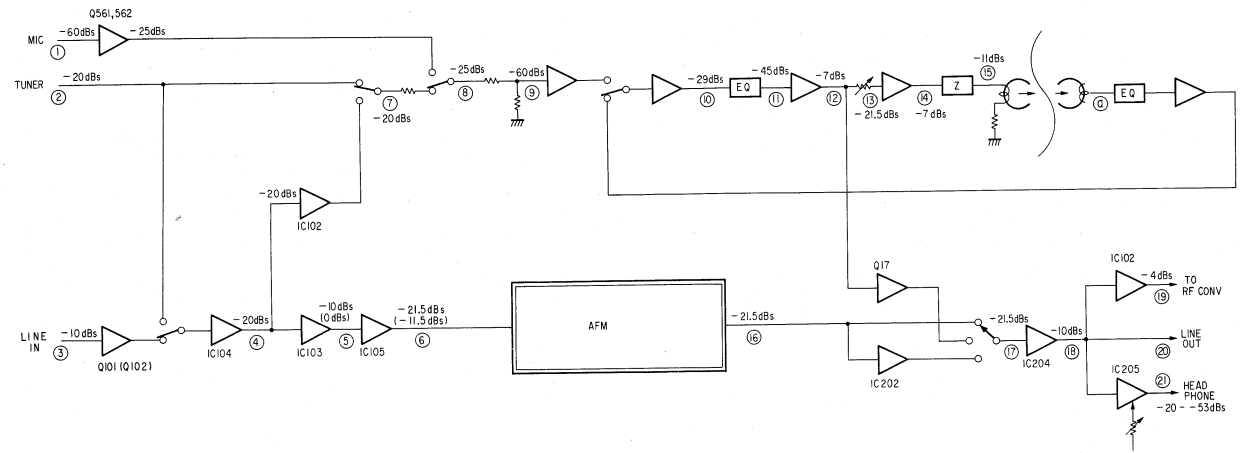
3-24. CTL CIRCUIT TIMING CHART

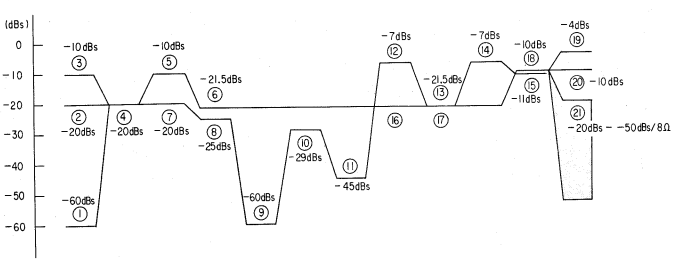


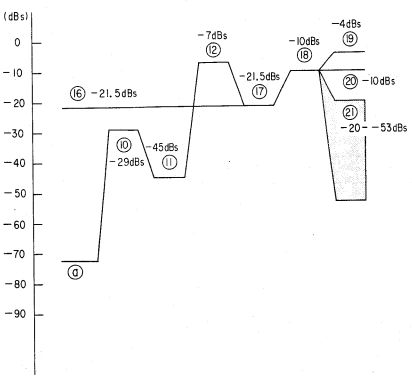
3-25. PAUSE TIMING CHART



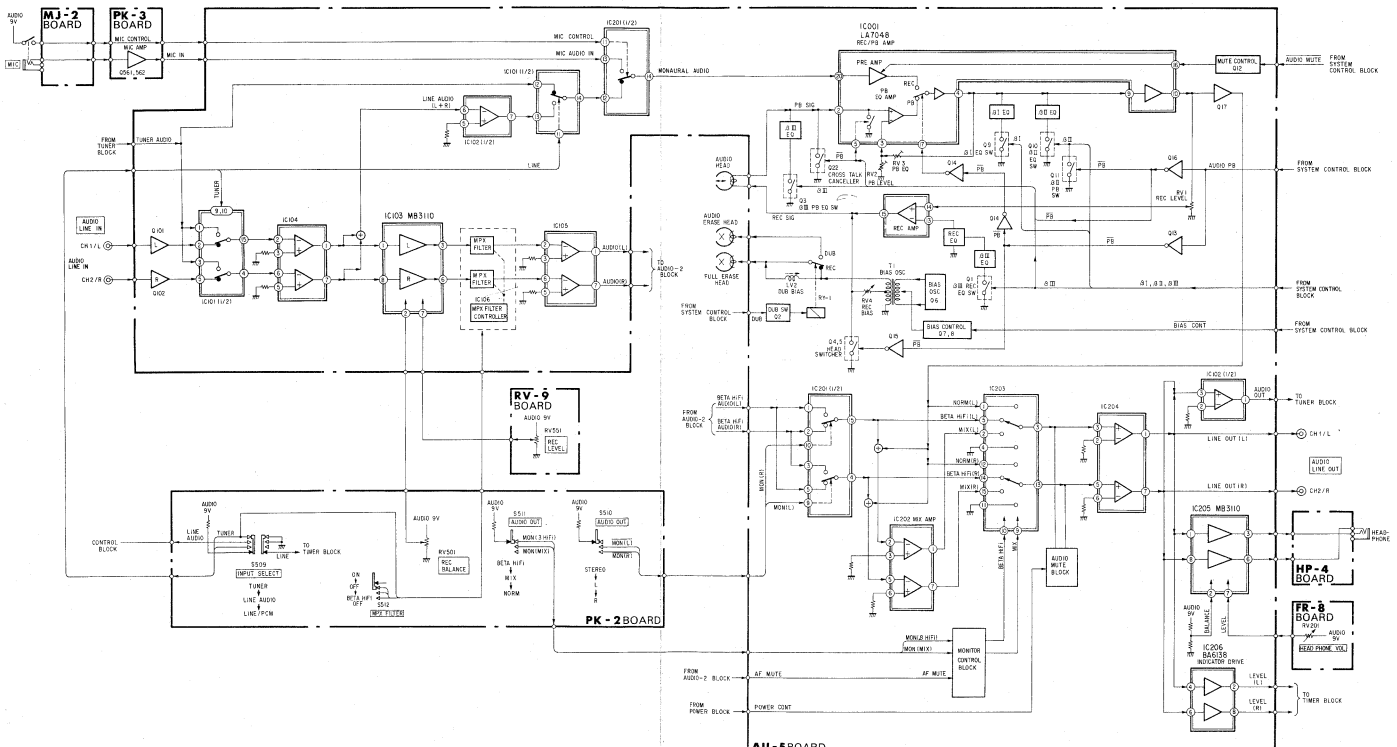
3-26. AUDIO LEVEL DIAGRAM



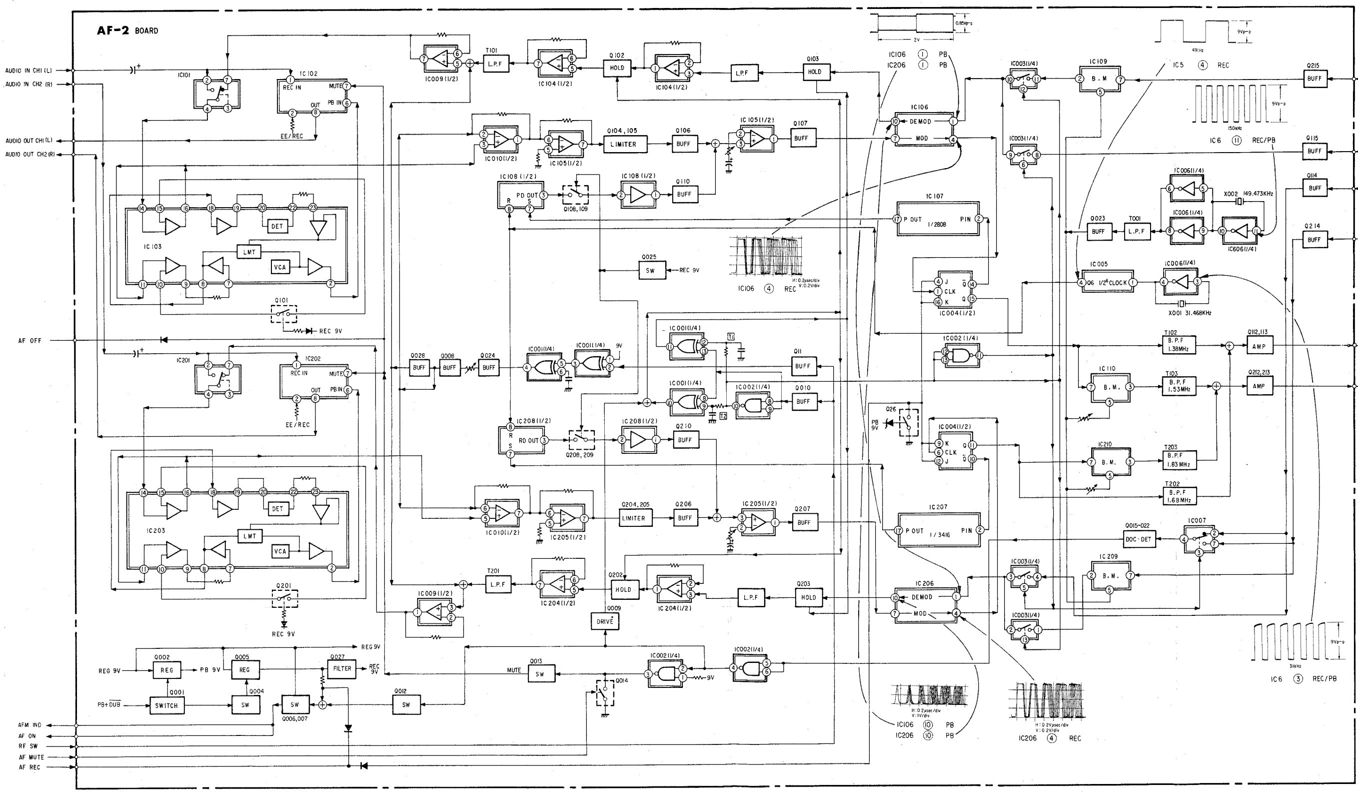




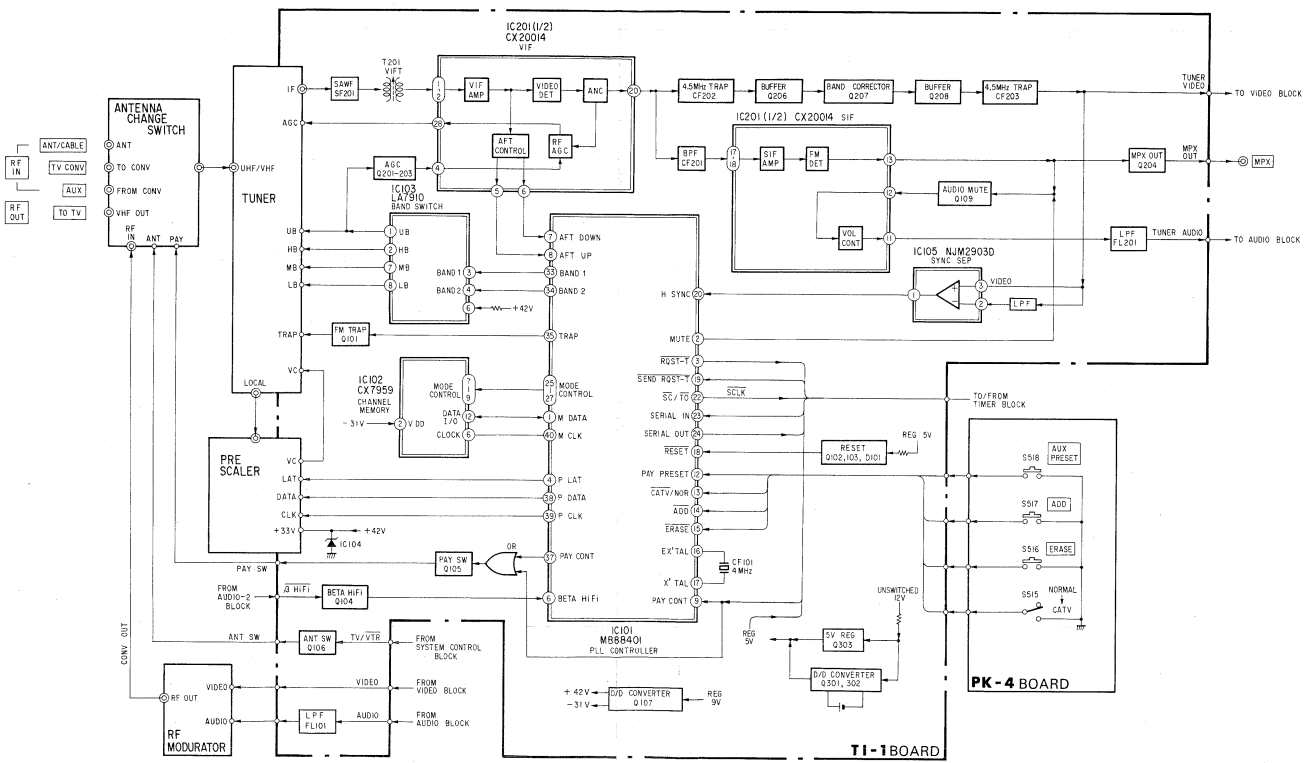
3-27. AUDIO BLOCK DIAGRAM (1)



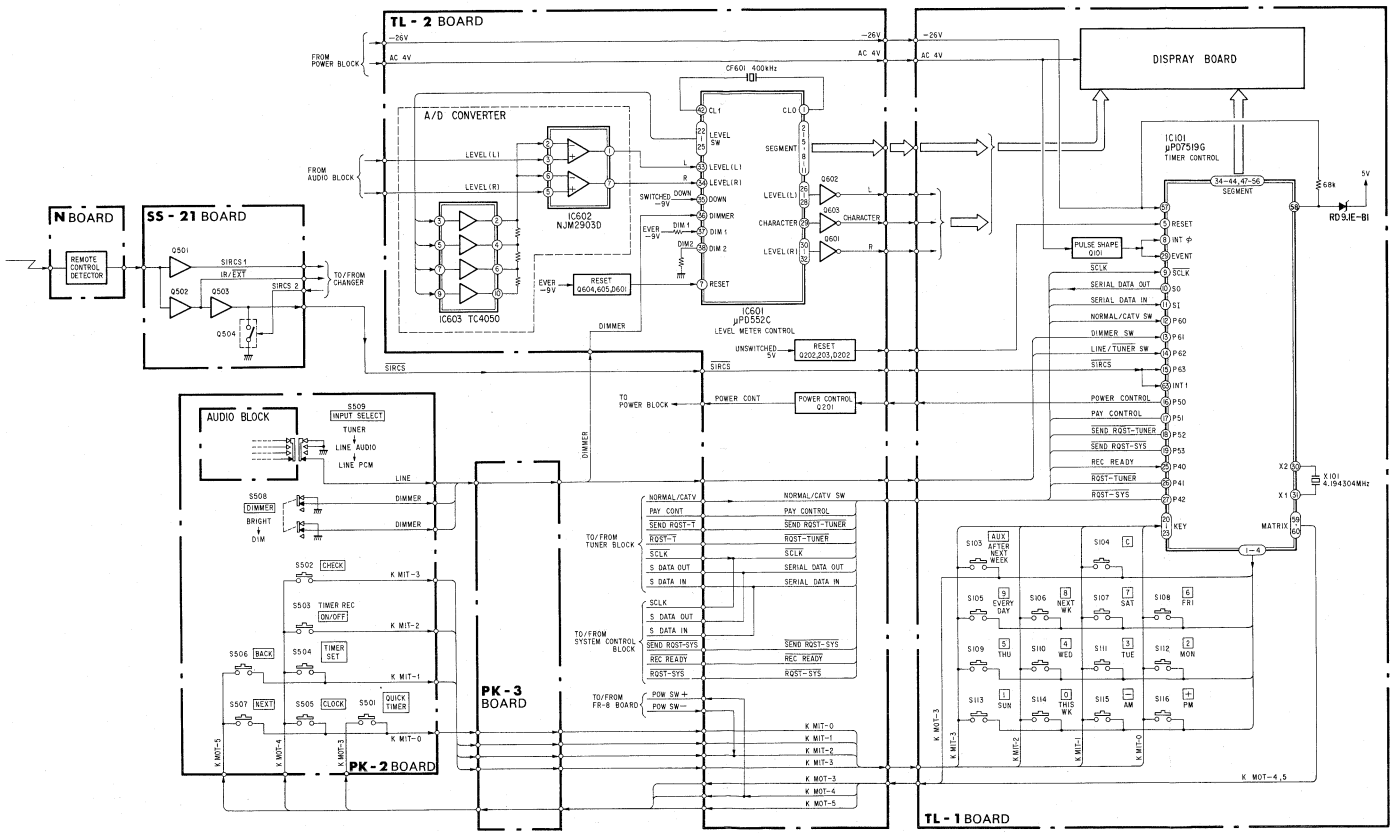
3-28. AUDIO BLOCK DIAGRAM (2)


AF-2 BOARD
AUDIO IN CH1 (L)
AUDIO IN CH2 (R)
AUDIO OUT CH1 (L)
AUDIO OUT CH2 (R)
AF OFF
AFM IND
AF ON
RF SW
AF MUTE
AF REC
REC A
REC B
f2 1.53MHz
f1 1.38MHz
f3 1.68MHz
f4 1.83MHz
IC101
IC102
REC IN
MUTE
PB IN
OUT
EE/REC
IC103
DET
LMT
VCA
Q101
REC 9V
IC201
IC202
IC203
Q201
IC009 (1/2)
T101
L.P.F
IC104 (1/2)
Q102
HOLD
Q103
IC010 (1/2)
IC105 (1/2)
Q104, 105
LIMITER
Q106
BUFF
Q107
IC108 (1/2)
PD OUT
Q108, 109
Q110
IC106
DEMOD
MOD
IC107
P OUT
1/2808
PIN
Q025
SW
IC106 ① PB
IC206 ① PB
IC106 ④ REC
H: 0.2μsec/div
V: 0.2V/div
0.85Vp-p
2V
IC003 (1/4)
IC109
B.M
IC5 ④ REC
491Hz
9Vp-p
150kHz
IC6 ⑪ REC/PB
Q215
Q115
Q114
Q214
IC006 (1/4)
X002 149.473KHz
Q023
T001
IC606 (1/4)
IC005
Q6 1/2⁶ CLOCK
X001 31.468KHz
IC004 (1/2)
CLK
IC002 (1/4)
T102
B.P.F 1.38MHz
Q112, 113
AMP
IC110
T103
B.P.F 1.53MHz
Q212, 213
Q028
Q008
Q024
IC001 (1/4)
9V
Q11
Q010
T1
T2
Q26
PB 9V
IC208 (1/2)
RD OUT
Q208, 209
Q210
IC210
T203
B.P.F 1.83MHz
T202
B.P.F 1.68MHz
Q204, 205
Q206
IC205 (1/2)
Q207
IC207
1/3416
Q015~022
DOC·DET
IC007
T201
IC204 (1/2)
Q202
Q203
Q009
DRIVE
IC206
IC209
REG 9V
Q002
REG
PB 9V
Q005
Q027
FILTER
REC 9V
Q001
SWITCH
PB+DUB
Q004
Q006, 007
Q012
Q013
MUTE
Q014
IC106 ⑩ PB
IC206 ⑩ PB
H: 0.2μsec/div
V: 1V/div
IC206 ④ REC
H: 0.2Vμsec/div
V: 0.2V/div
31kHz
IC6 ③ REC/PB

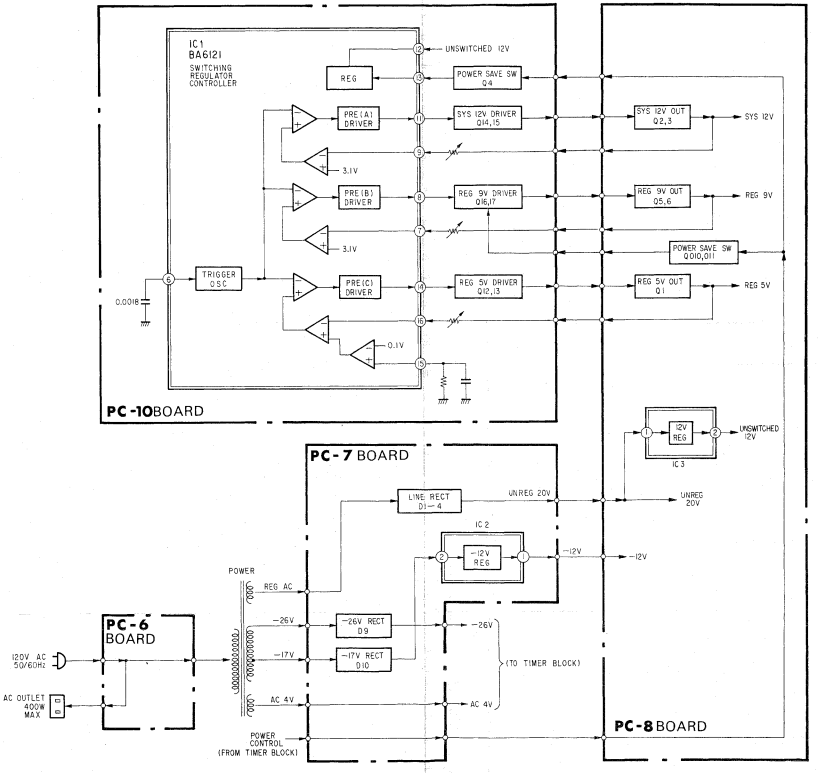
3-29. TUNER BLOCK DIAGRAM



3-30. TIMER BLOCK DIAGRAM

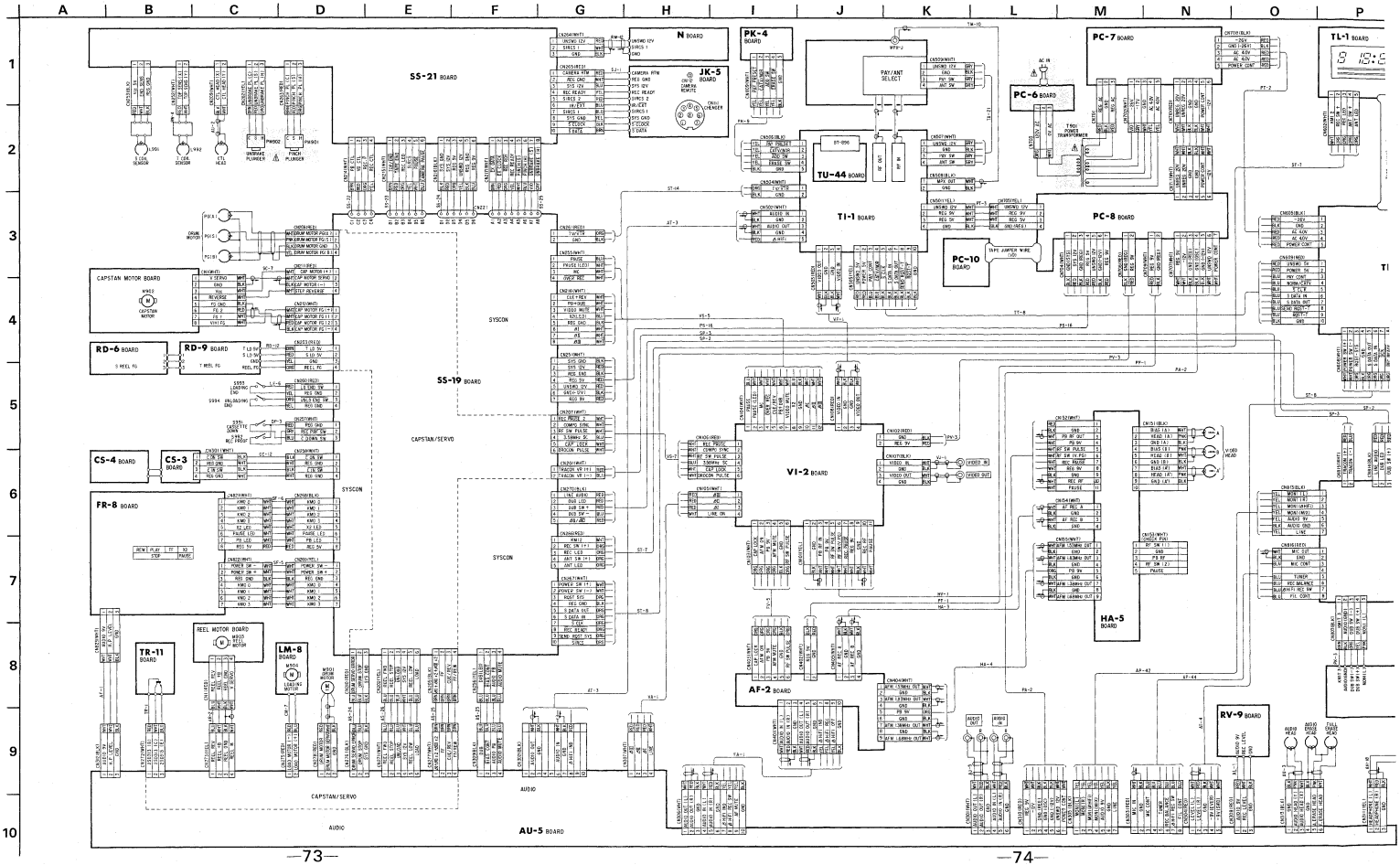


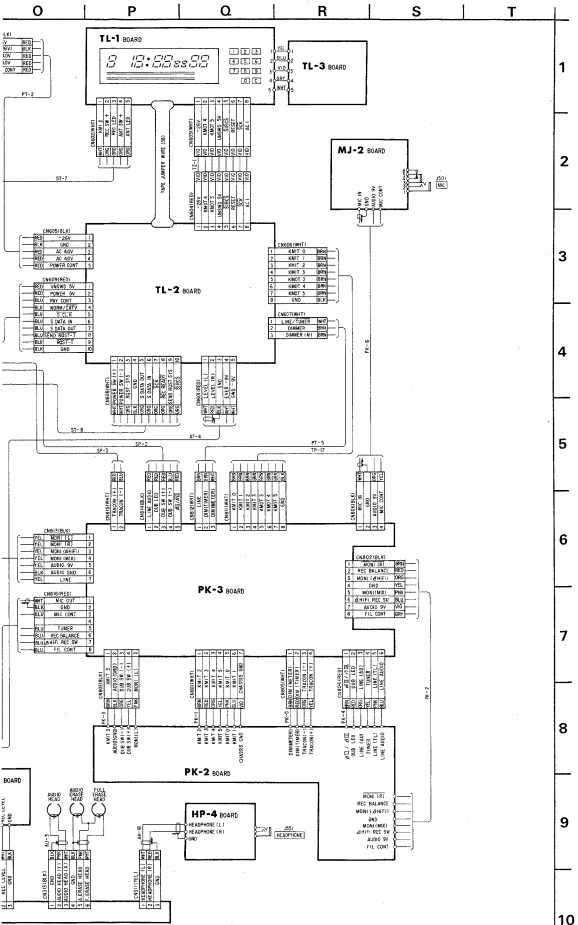
3-31. POWER SUPPLY BLOCK DIAGRAM



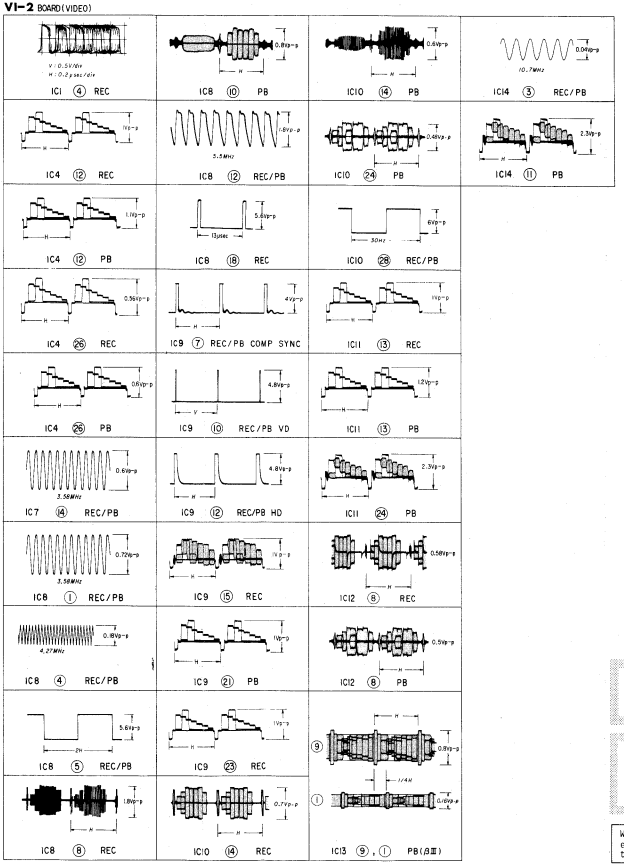
SECTION 4
SCHEMATIC DIAGRAM and PRINTED WIRING BOARDS

4-1. FRAME SCHEMATIC DIAGRAM

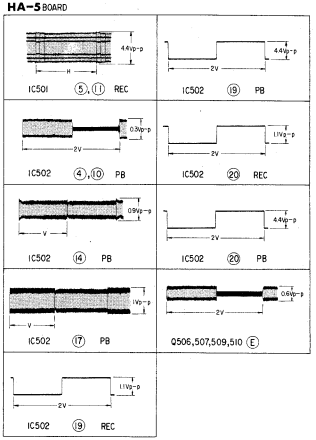




VI-2 BOARD (VIDEO)



HA-5 BOARD



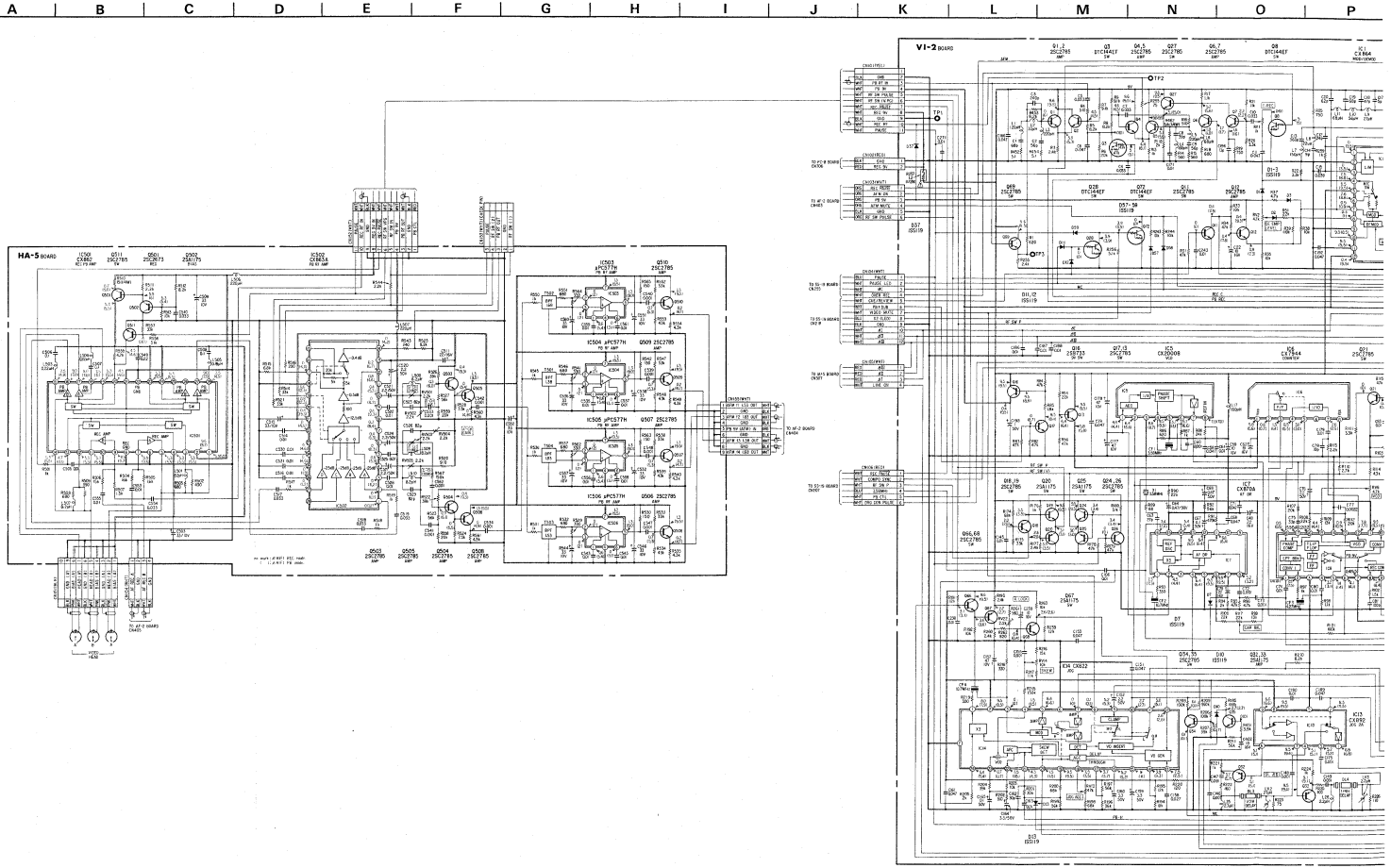
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

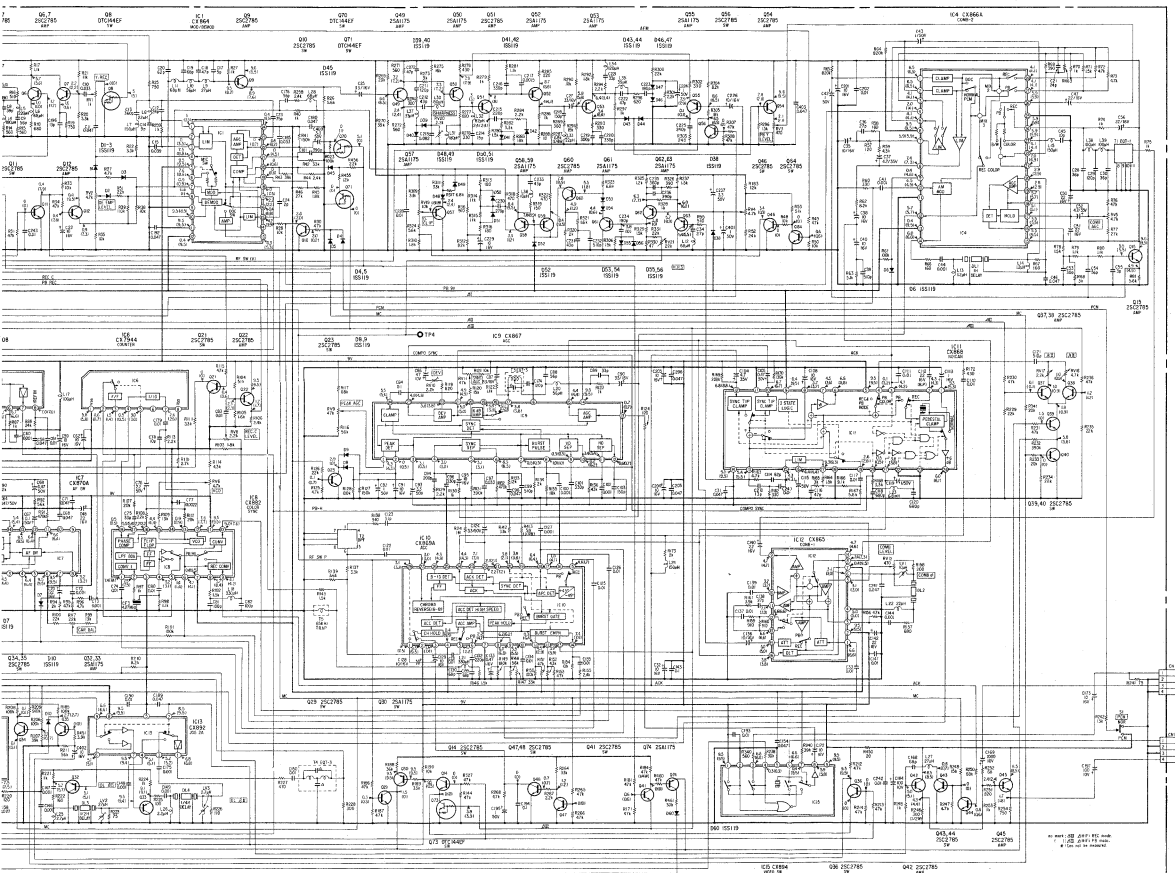
When indicating parts by reference number, please include the board name.

4-2. HA-5 (DOWN-CONVERTED CHROMA, Y-FM & AFM SIGNALS, RECORD/PLAYBACK AMP), VI-2 (Y & CHROMA SIGNALS RECORD/PLAYBACK PROCESS, AFM SIGNAL RECORD/PLAYBACK PROCESS) SCHEMATIC DIAGRAM

– Ref. No. HA-5 BOARD : 9000 series, VI-2 BOARD : 1000 series –



EMATIC DIAGRAM



Note:

- All resistors are in ohms, 1/6W unless otherwise noted. kΩ : 1000Ω, MΩ : 1000kΩ
- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- (NAMU) : nonflammable resistor.
- The red lines show the main voltages.
- All voltages are dc measured with a VOM (10MΩ).

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

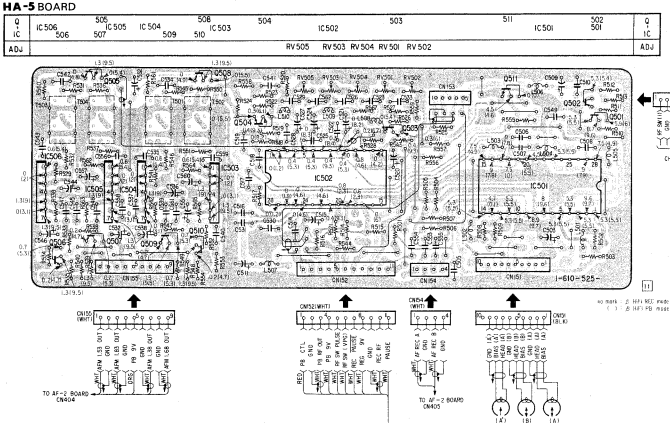
Note: Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

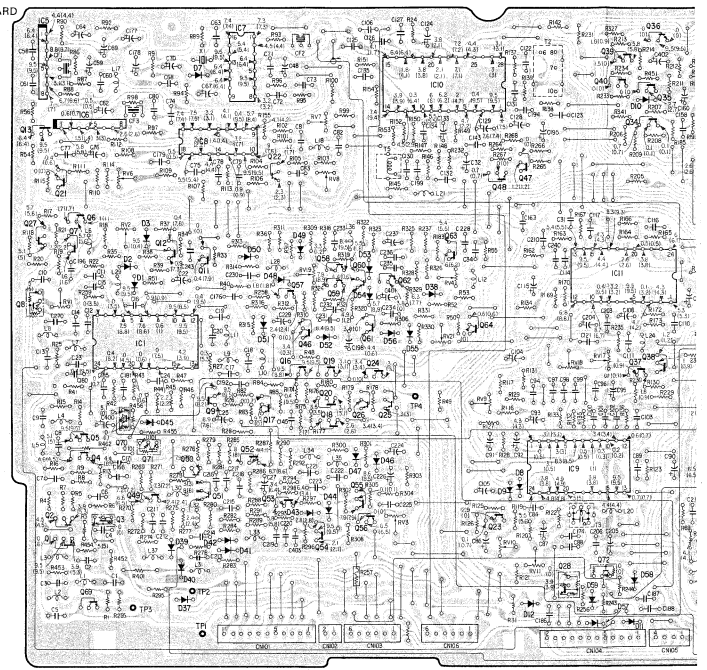
HA-5 (DOWN-CONVERTED CHROMA, Y-FM & AFM SIGNALS, RECORD/PLAYBACK AMP), VI-2 (Y & CHROMA SIGNALS RECORD/PLAYBACK PROCESS, AFM SIGNAL RECORD/PLAYBACK PROCESS) PRINTED WIRING BOARDS

– Ref. No. HA-5 BOARD : 9000 series, VI-2 BOARD : 1000 series –

HA-5 BOARD

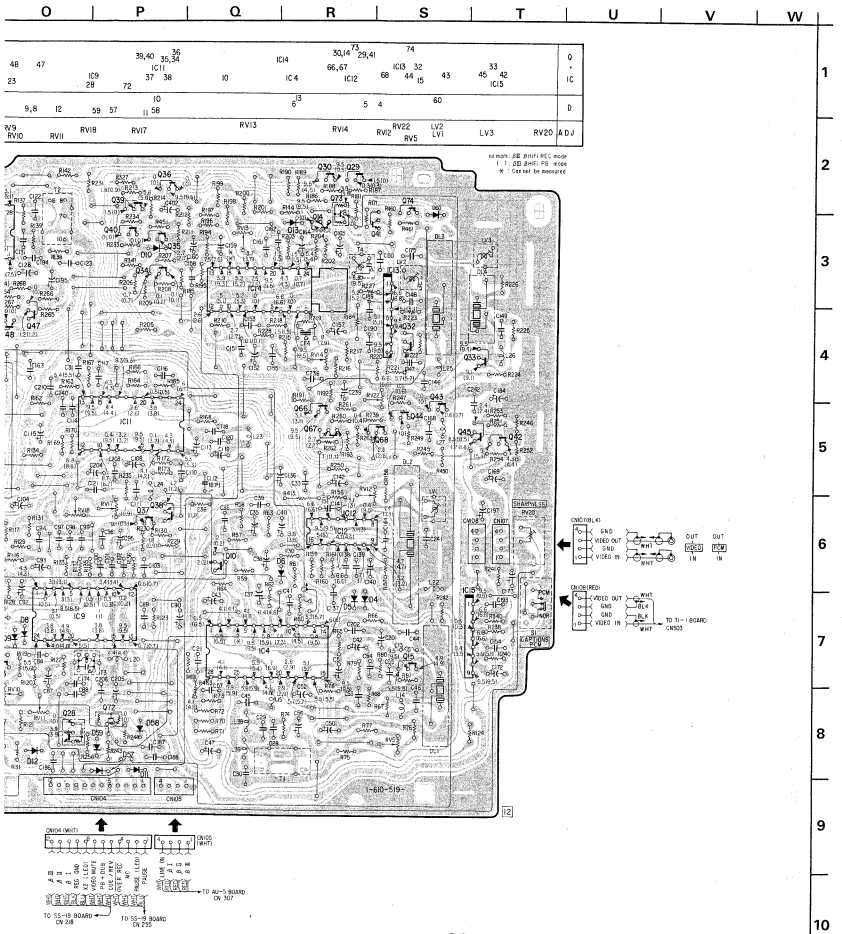


VI - 2 BOARD



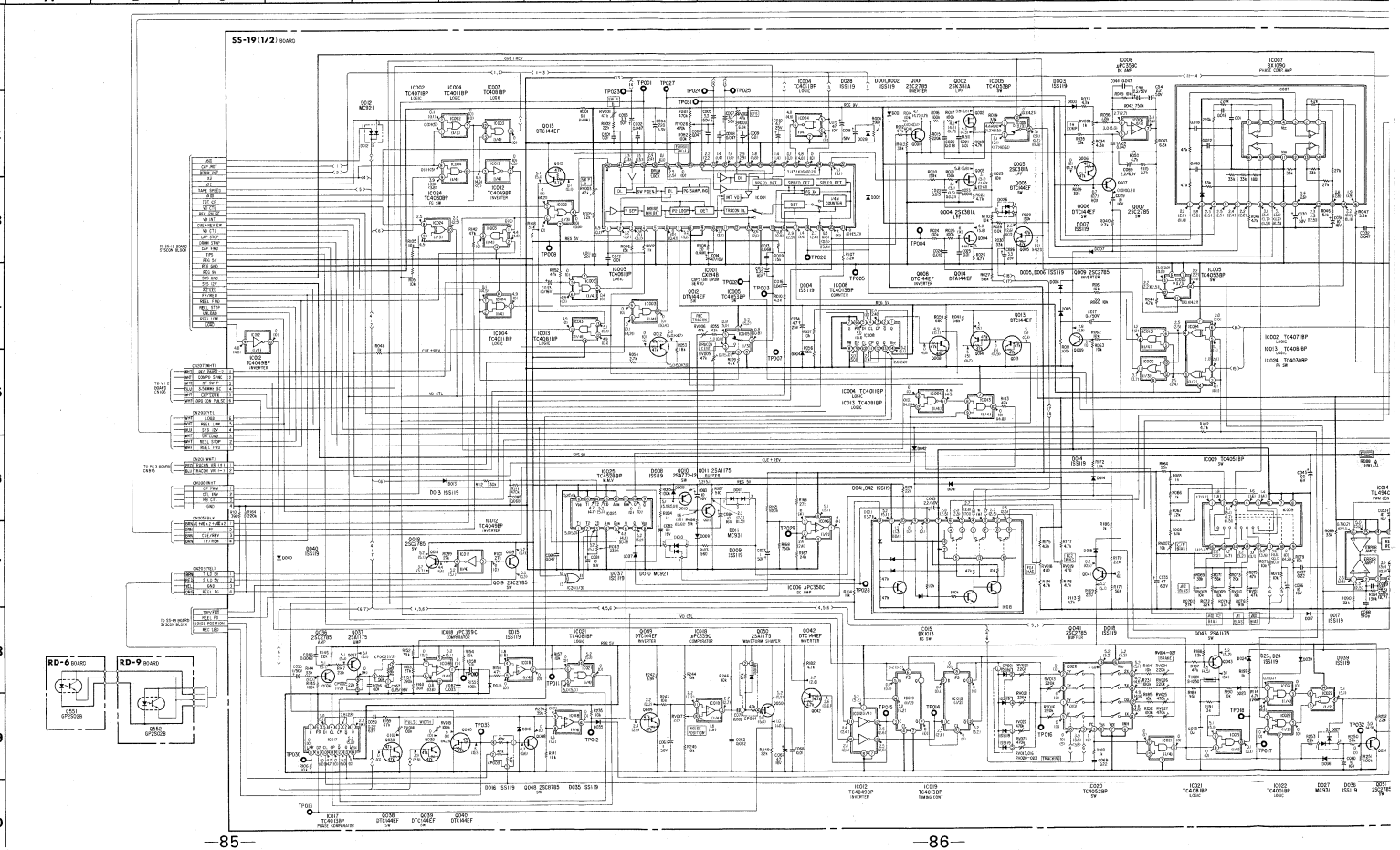
When indicating parts by reference number, please include the board name.

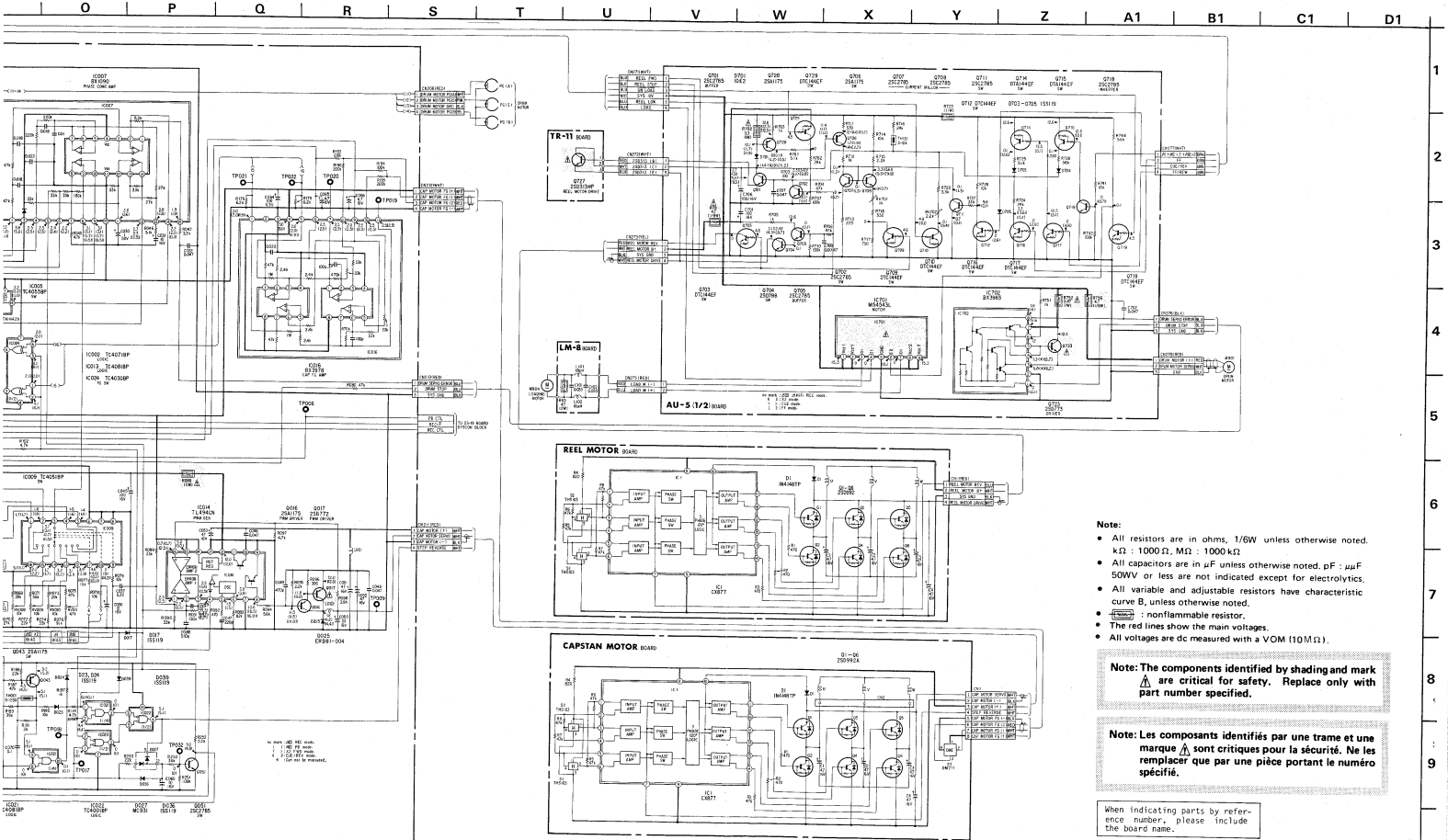
BOARDS


O P Q R S T U V W
1 2 3 4 5 6 7 8 9 10
IC1 IC2 IC3 IC4 IC5 IC6 IC7 IC8 IC9 IC10 IC11 IC12 IC13 IC14 IC15
Q1 Q2 Q3 Q4 Q5 Q6 Q7 Q8 Q9 Q10 Q11 Q12 Q13 Q14 Q15 Q16 Q17 Q18 Q19 Q20 Q21 Q22 Q23 Q24 Q25 Q26 Q27 Q28 Q29 Q30 Q31 Q32 Q33 Q34 Q35 Q36 Q37 Q38 Q39 Q40 Q41 Q42 Q43 Q44 Q45 Q46 Q47 Q48
D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13 D14 D15 D16 D17 D18 D19 D20 D21 D22 D23 D24 D25 D26 D27 D28 D29 D30 D31 D32 D33 D34 D35 D36 D37 D38 D39 D40 D41 D42 D43 D44 D45 D46 D47 D48 D49 D50 D51 D52 D53 D54 D55 D56 D57 D58 D59 D60 D61 D62 D63 D64 D65 D66 D67 D68 D69 D70 D71 D72 D73 D74 D75 D76 D77 D78 D79 D80 D81 D82 D83 D84 D85 D86 D87 D88 D89 D90 D91 D92 D93 D94 D95 D96 D97 D98 D99 D100 D101 D102 D103 D104 D105 D106 D107 D108 D109 D110 D111 D112 D113 D114 D115 D116 D117 D118 D119 D120 D121 D122 D123 D124 D125 D126 D127 D128 D129 D130 D131 D132 D133 D134 D135 D136 D137 D138 D139 D140 D141 D142 D143 D144 D145 D146 D147 D148 D149 D150 D151 D152 D153 D154 D155 D156 D157 D158 D159 D160 D161 D162 D163 D164 D165 D166 D167 D168 D169 D170 D171 D172 D173 D174 D175 D176 D177 D178 D179 D180 D181 D182 D183 D184 D185 D186 D187 D188 D189 D190 D191 D192 D193 D194 D195 D196 D197 D198 D199 D200 D201 D202 D203 D204 D205 D206 D207 D208 D209 D210 D211 D212 D213 D214 D215 D216 D217 D218 D219 D220 D221 D222 D223 D224 D225 D226 D227 D228 D229 D230 D231 D232 D233 D234 D235 D236 D237 D238 D239 D240 D241 D242 D243 D244 D245 D246 D247 D248 D249 D250 D251 D252 D253 D254 D255 D256 D257 D258 D259 D260 D261 D262 D263 D264 D265 D266 D267 D268 D269 D270 D271 D272 D273 D274 D275 D276 D277 D278 D279 D280 D281 D282 D283 D284 D285 D286 D287 D288 D289 D290 D291 D292 D293 D294 D295 D296 D297 D298 D299 D300 D301 D302 D303 D304 D305 D306 D307 D308 D309 D310 D311 D312 D313 D314 D315 D316 D317 D318 D319 D320 D321 D322 D323 D324 D325 D326 D327 D328 D329 D330 D331 D332 D333 D334 D335 D336 D337 D338 D339 D340 D341 D342 D343 D344 D345 D346 D347 D348 D349 D350 D351 D352 D353 D354 D355 D356 D357 D358 D359 D360 D361 D362 D363 D364 D365 D366 D367 D368 D369 D370 D371 D372 D373 D374 D375 D376 D377 D378 D379 D380 D381 D382 D383 D384 D385 D386 D387 D388 D389 D390 D391 D392 D393 D394 D395 D396 D397 D398 D399 D400 D401 D402 D403 D404 D405 D406 D407 D408 D409 D410 D411 D412 D413 D414 D415 D416 D417 D418 D419 D420 D421 D422 D423 D424 D425 D426 D427 D428 D429 D430 D431 D432 D433 D434 D435 D436 D437 D438 D439 D440 D441 D442 D443 D444 D445 D446 D447 D448 D449 D450 D451 D452 D453 D454 D455 D456 D457 D458 D459 D460 D461 D462 D463 D464 D465 D466 D467 D468 D469 D470 D471 D472 D473 D474 D475 D476 D477 D478 D479 D480 D481 D482 D483 D484 D485 D486 D487 D488 D489 D490 D491 D492 D493 D494 D495 D496 D497 D498 D499 D500 D501 D502 D503 D504 D505 D506 D507 D508 D509 D510 D511 D512 D513 D514 D515 D516 D517 D518 D519 D520 D521 D522 D523 D524 D525 D526 D527 D528 D529 D530 D531 D532 D533 D534 D535 D536 D537 D538 D539 D540 D541 D542 D543 D544 D545 D546 D547 D548 D549 D550 D551 D552 D553 D554 D555 D556 D557 D558 D559 D560 D561 D562 D563 D564 D565 D566 D567 D568 D569 D570 D571 D572 D573 D574 D575 D576 D577 D578 D579 D580 D581 D582 D583 D584 D585 D586 D587 D588 D589 D590 D591 D592 D593 D594 D595 D596 D597 D598 D599 D600 D601 D602 D603 D604 D605 D606 D607 D608 D609 D610 D611 D612 D613 D614 D615 D616 D617 D618 D619 D620 D621 D622 D623 D624 D625 D626 D627 D628 D629 D630 D631 D632 D633 D634 D635 D636 D637 D638 D639 D640 D641 D642 D643 D644 D645 D646 D647 D648 D649 D650 D651 D652 D653 D654 D655 D656 D657 D658 D659 D660 D661 D662 D663 D664 D665 D666 D667 D668 D669 D670 D671 D672 D673 D674 D675 D676 D677 D678 D679 D680 D681 D682 D683 D684 D685 D686 D687 D688 D689 D690 D691 D692 D693 D694 D695 D696 D697 D698 D699 D700 D701 D702 D703 D704 D705 D706 D707 D708 D709 D710 D711 D712 D713 D714 D715 D716 D717 D718 D719 D720 D721 D722 D723 D724 D725 D726 D727 D728 D729 D730 D731 D732 D733 D734 D735 D736 D737 D738 D739 D740 D741 D742 D743 D744 D745 D746 D747 D748 D749 D750 D751 D752 D753 D754 D755 D756 D757 D758 D759 D760 D761 D762 D763 D764 D765 D766 D767 D768 D769 D770 D771 D772 D773 D774 D775 D776 D777 D778 D779 D780 D781 D782 D783 D784 D785 D786 D787 D788 D789 D790 D791 D792 D793 D794 D795 D796 D797 D798 D799 D800 D801 D802 D803 D804 D805 D806 D807 D808 D809 D810 D811 D812 D813 D814 D815 D816 D817 D818 D819 D820 D821 D822 D823 D824 D825 D826 D827 D828 D829 D830 D831 D832 D833 D834 D835 D836 D837 D838 D839 D840 D841 D842 D843 D844 D845 D846 D847 D848 D849 D850 D851 D852 D853 D854 D855 D856 D857 D858 D859 D860 D861 D862 D863 D864 D865 D866 D867 D868 D869 D870 D871 D872 D873 D874 D875 D876 D877 D878 D879 D880 D881 D882 D883 D884 D885 D886 D887 D888 D889 D890 D891 D892 D893 D894 D895 D896 D897 D898 D899 D900 D901 D902 D903 D904 D905 D906 D907 D908 D909 D910 D911 D912 D913 D914 D915 D916 D917 D918 D919 D920 D921 D922 D923 D924 D925 D926 D927 D928 D929 D930 D931 D932 D933 D934 D935 D936 D937 D938 D939 D940 D941 D942 D943 D944 D945 D946 D947 D948 D949 D950 D951 D952 D953 D954 D955 D956 D957 D958 D959 D960 D961 D962 D963 D964 D965 D966 D967 D968 D969 D970 D971 D972 D973 D974 D975 D976 D977 D978 D979 D980 D981 D982 D983 D984 D985 D986 D987 D988 D989 D990 D991 D992 D993 D994 D995 D996 D997 D998 D999 D1000
CN004 CN005 CN006 CN007 CN008 CN009 CN010 CN011 CN012 CN013 CN014 CN015 CN016 CN017 CN018 CN019 CN020 CN021 CN022 CN023 CN024 CN025 CN026 CN027 CN028 CN029 CN030 CN031 CN032 CN033 CN034 CN035 CN036 CN037 CN038 CN039 CN040 CN041 CN042 CN043 CN044 CN045 CN046 CN047 CN048 CN049 CN050 CN051 CN052 CN053 CN054 CN055 CN056 CN057 CN058 CN059 CN060 CN061 CN062 CN063 CN064 CN065 CN066 CN067 CN068 CN069 CN070 CN071 CN072 CN073 CN074 CN075 CN076 CN077 CN078 CN079 CN080 CN081 CN082 CN083 CN084 CN085 CN086 CN087 CN088 CN089 CN090 CN091 CN092 CN093 CN094 CN095 CN096 CN097 CN098 CN099 CN100 CN101 CN102 CN103 CN104 CN105 CN106 CN107 CN108 CN109 CN110 CN111 CN112 CN113 CN114 CN115 CN116 CN117 CN118 CN119 CN120 CN121 CN122 CN123 CN124 CN125 CN126 CN127 CN128 CN129 CN130 CN131 CN132 CN133 CN134 CN135 CN136 CN137 CN138 CN139 CN140 CN141 CN142 CN143 CN144 CN145 CN146 CN147 CN148 CN149 CN150 CN151 CN152 CN153 CN154 CN155 CN156 CN157 CN158 CN159 CN160 CN161 CN162 CN163 CN164 CN165 CN166 CN167 CN168 CN169 CN170 CN171 CN172 CN173 CN174 CN175 CN176 CN177 CN178 CN179 CN180 CN181 CN182 CN183 CN184 CN185 CN186 CN187 CN188 CN189 CN190 CN191 CN192 CN193 CN194 CN195 CN196 CN197 CN198 CN199 CN200 CN201 CN202 CN203 CN204 CN205 CN206 CN207 CN208 CN209 CN210 CN211 CN212 CN213 CN214 CN215 CN216 CN217 CN218 CN219 CN220 CN221 CN222 CN223 CN224 CN225 CN226 CN227 CN228 CN229 CN230 CN231 CN232 CN233 CN234 CN235 CN236 CN237 CN238 CN239 CN240 CN241 CN242 CN243 CN244 CN245 CN246 CN247 CN248 CN249 CN250 CN251 CN252 CN253 CN254 CN255 CN256 CN257 CN258 CN259 CN260 CN261 CN262 CN263 CN264 CN265 CN266 CN267 CN268 CN269 CN270 CN271 CN272 CN273 CN274 CN275 CN276 CN277 CN278 CN279 CN280 CN281 CN282 CN283 CN284 CN285 CN286 CN287 CN288 CN289 CN290 CN291 CN292 CN293 CN294 CN295 CN296 CN297 CN298 CN299 CN300 CN301 CN302 CN303 CN304 CN305 CN306 CN307 CN308 CN309 CN310 CN311 CN312 CN313 CN314 CN315 CN316 CN317 CN318 CN319 CN320 CN321 CN322 CN323 CN324 CN325 CN326 CN327 CN328 CN329 CN330 CN331 CN332 CN333 CN334 CN335 CN336 CN337 CN338 CN339 CN340 CN341 CN342 CN343 CN344 CN345 CN346 CN347 CN348 CN349 CN350 CN351 CN352 CN353 CN354 CN355 CN356 CN357 CN358 CN359 CN360 CN361 CN362 CN363 CN364 CN365 CN366 CN367 CN368 CN369 CN370 CN371 CN372 CN373 CN374 CN375 CN376 CN377 CN378 CN379 CN380 CN381 CN382 CN383 CN384 CN385 CN386 CN387 CN388 CN389 CN390 CN391 CN392 CN393 CN394 CN395 CN396 CN397 CN398 CN399 CN400 CN401 CN402 CN403 CN404 CN405 CN406 CN407 CN408 CN409 CN410 CN411 CN412 CN413 CN414 CN415 CN416 CN417 CN418 CN419 CN420 CN421 CN422 CN423 CN424 CN425 CN426 CN427 CN428 CN429 CN430 CN431 CN432 CN433 CN434 CN435 CN436 CN437 CN438 CN439 CN440 CN441 CN442 CN443 CN444 CN445 CN446 CN447 CN448 CN449 CN450 CN451 CN452 CN453 CN454 CN455 CN456 CN457 CN458 CN459 CN460 CN461 CN462 CN463 CN464 CN465 CN466 CN467 CN468 CN469 CN470 CN471 CN472 CN473 CN474 CN475 CN476 CN477 CN478 CN479 CN480 CN481 CN482 CN483 CN484 CN485 CN486 CN487 CN488 CN489 CN490 CN491 CN492 CN493 CN494 CN495 CN496 CN497 CN498 CN499 CN500 CN501 CN502 CN503 CN504 CN505 CN506 CN507 CN508 CN509 CN510 CN511 CN512 CN513 CN514 CN515 CN516 CN517 CN518 CN519 CN520 CN521 CN522 CN523 CN524 CN525 CN526 CN527 CN528 CN529 CN530 CN531 CN532 CN533 CN534 CN535 CN536 CN537 CN538 CN539 CN540 CN541 CN542 CN543 CN544 CN545 CN546 CN547 CN548 CN549 CN550 CN551 CN552 CN553 CN554 CN555 CN556 CN557 CN558 CN559 CN560 CN561 CN562 CN563 CN564 CN565 CN566 CN567 CN568 CN569 CN570 CN571 CN572 CN573 CN574 CN575 CN576 CN577 CN578 CN579 CN580 CN581 CN582 CN583 CN584 CN585 CN586 CN587 CN588 CN589 CN590 CN591 CN592 CN593 CN594 CN595 CN596 CN597 CN598 CN599 CN600 CN601 CN602 CN603 CN604 CN605 CN606 CN607 CN608 CN609 CN610 CN611 CN612 CN613 CN614 CN615 CN616 CN617 CN618 CN619 CN620 CN621 CN622 CN623 CN624 CN625 CN626 CN627 CN628 CN629 CN630 CN631 CN632 CN633 CN634 CN635 CN636 CN637 CN638 CN639 CN640 CN641 CN642 CN643 CN644 CN645 CN646 CN647 CN648 CN649 CN650 CN651 CN652 CN653 CN654 CN655 CN656 CN657 CN658 CN659 CN660 CN661 CN662 CN663 CN664 CN665 CN666 CN667 CN668 CN669 CN670 CN671 CN672 CN673 CN674 CN675 CN676 CN677 CN678 CN679 CN680 CN681 CN682 CN683 CN684 CN685 CN686 CN687 CN688 CN689 CN690 CN691 CN692 CN693 CN694 CN695 CN696 CN697 CN698 CN699 CN700 CN701 CN702 CN703 CN704 CN705 CN706 CN707 CN708 CN709 CN710 CN711 CN712 CN713 CN714 CN715 CN716 CN717 CN718 CN719 CN720 CN721 CN722 CN723 CN724 CN725 CN726 CN727 CN728 CN729 CN730 CN731 CN732 CN733 CN734 CN735 CN736 CN737 CN738 CN739 CN740 CN741 CN742 CN743 CN744 CN745 CN746 CN747 CN748 CN749 CN750 CN751 CN752 CN753 CN754 CN755 CN756 CN757 CN758 CN759 CN760 CN761 CN762 CN763 CN764 CN765 CN766 CN767 CN768 CN769 CN770 CN771 CN772 CN773 CN774 CN775 CN776 CN777 CN778 CN779 CN780 CN781 CN782 CN783 CN784 CN785 CN786 CN787 CN788 CN789 CN790 CN791 CN792 CN793 CN794 CN795 CN796 CN797 CN798 CN799 CN800 CN801 CN802 CN803 CN804 CN805 CN806 CN807 CN808 CN809 CN810 CN811 CN812 CN813 CN814 CN815 CN816 CN817 CN818 CN819 CN820 CN821 CN822 CN823 CN824 CN825 CN826 CN827 CN828 CN829 CN830 CN831 CN832 CN833 CN834 CN835 CN836 CN837 CN838 CN839 CN840 CN841 CN842 CN843 CN844 CN845 CN846 CN847 CN848 CN849 CN850 CN851 CN852 CN853 CN854 CN855 CN856 CN857 CN858 CN859 CN860 CN861 CN862 CN863 CN864 CN865 CN866 CN867 CN868 CN869 CN870 CN871 CN872 CN873 CN874 CN875 CN876 CN877 CN878 CN879 CN880 CN881 CN882 CN883 CN884 CN885 CN886 CN887 CN888 CN889 CN890 CN891 CN892 CN893 CN894 CN895 CN896 CN897 CN898 CN899 CN900 CN901 CN902 CN903 CN904 CN905 CN906 CN907 CN908 CN909 CN910 CN911 CN912 CN913 CN914 CN915 CN916 CN917 CN918 CN919 CN920 CN921 CN922 CN923 CN924 CN925 CN926 CN927 CN928 CN929 CN930 CN931 CN932 CN933 CN934 CN935 CN936 CN937 CN938 CN939 CN940 CN941 CN942 CN943 CN944 CN945 CN946 CN947 CN948 CN949 CN950 CN951 CN952 CN953 CN954 CN955 CN956 CN957 CN958 CN959 CN960 CN961 CN962 CN963 CN964 CN965 CN966 CN967 CN968 CN969 CN970 CN971 CN972 CN973 CN974 CN975 CN976 CN977 CN978 CN979 CN980 CN981 CN982 CN983 CN984 CN985 CN986 CN987 CN988 CN989 CN990 CN991 CN992 CN993 CN994 CN995 CN996 CN997 CN998 CN999 CN1000
1-610-619-
TO SS-19 BOARD CN 218
TO SS-19 BOARD CN 255
TO AU-5 BOARD CN 307
TO TI-1 BOARD CN505

4-3. RD-6, RD-9, SS-19 (SERVO CONTROL), TR-11, LM-8 (NOISE FILTER), AU-5 (SERVO CONTROL), REEL MOTOR (REEL MOTOR), CAPSTAN MOTOR (CAPSTAN MOTOR) SCHEMATIC DIAGRAM

– Ref. No. RD-6, RD-9, TR-11, LM-8 BOARD : 10000 series, AU-5 BOARD : 2000 series, SS-19 BOARD : 3000 series, REEL MOTOR BOARD : 11000 series –





Note:

- All resistors are in ohms, 1/6W unless otherwise noted. kΩ : 1000Ω, MΩ : 1000kΩ
- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : nonflammable resistor.
- The red lines show the main voltages.
- All voltages are dc measured with a VOM (10MΩ).

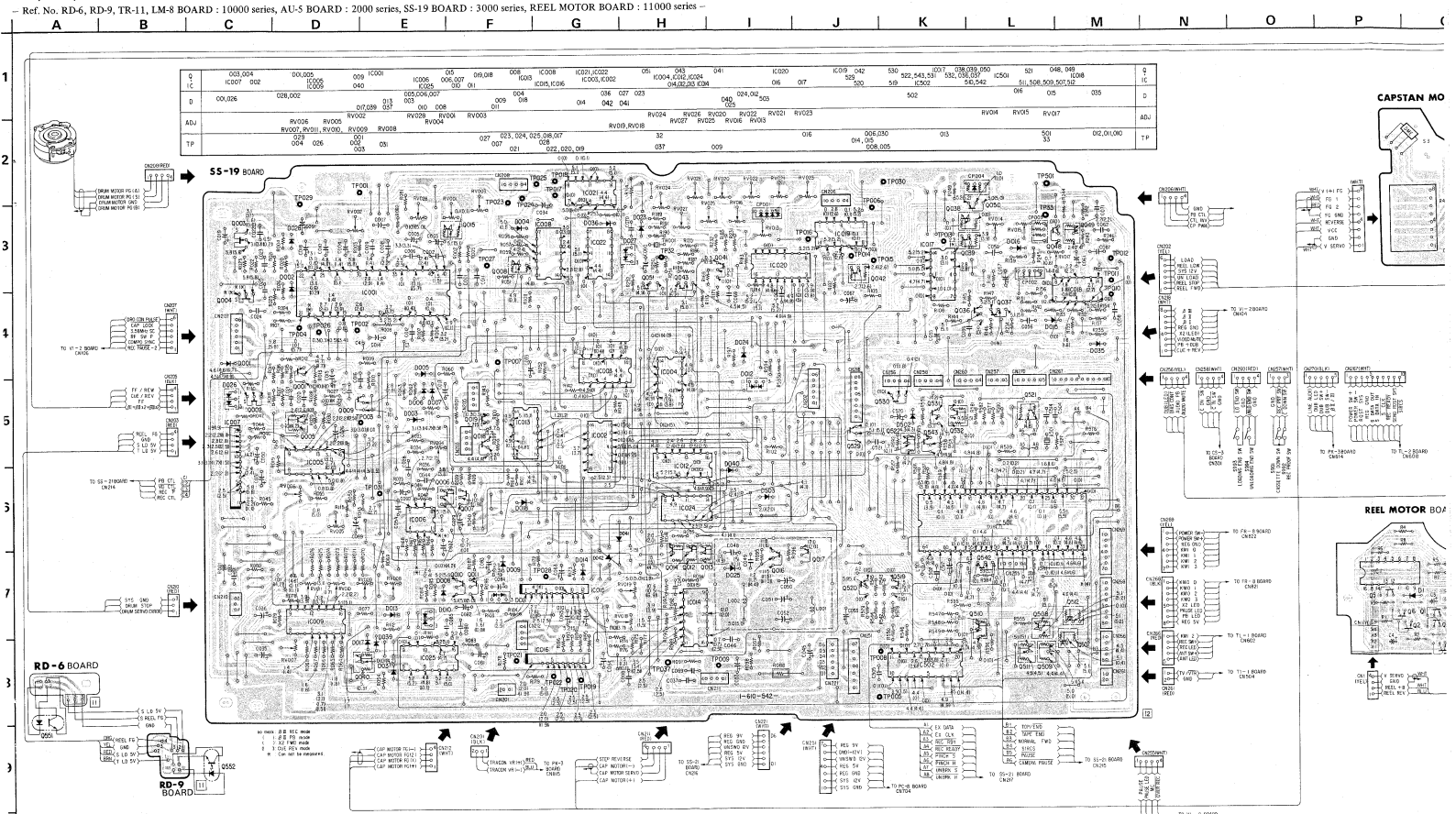
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

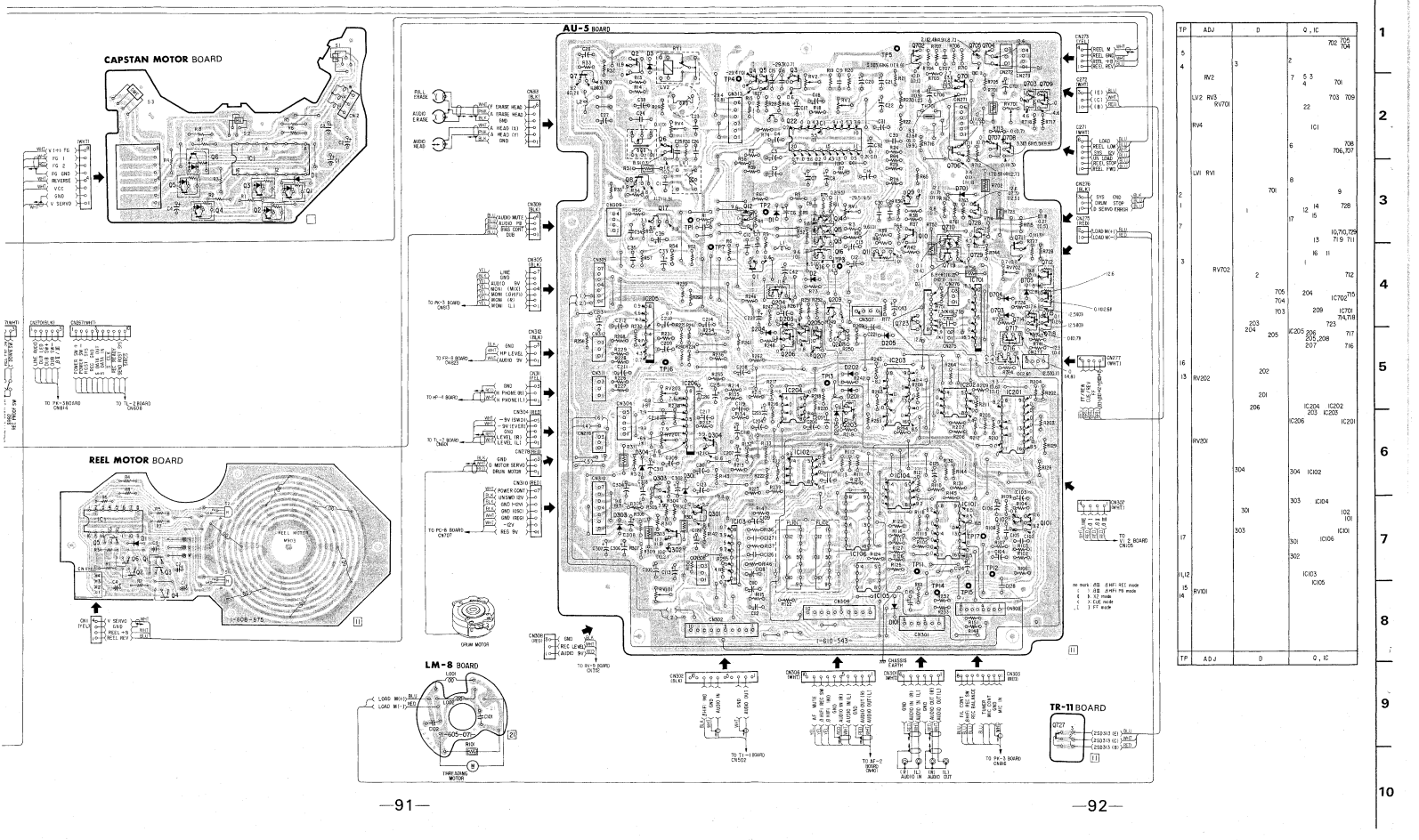
When indicating parts by reference number, please include the board name.

RD-6, RD-9, SS-19 (SERVO CONTROL), TR-11, LM-8 (NOISE FILTER), AU-5 (SERVO CONTROL), REEL MOTOR (REEL MOTOR), CAPSTAN MOTOR (CAPSTAN MOTOR) PRINTED WIRING BOARDS

– Ref. No. RD-6, RD-9, TR-11, LM-8 BOARD : 10000 series, AU-5 BOARD : 2000 series, SS-19 BOARD : 3000 series, REEL MOTOR BOARD : 11000 series –



When indicating parts by reference number, please include the board name.


P Q R S T U V W X Y Z A1 B1 C1 D1 E1
1 2 3 4 5 6 7 8 9 10
CAPSTAN MOTOR BOARD
REEL MOTOR BOARD
AU-5 BOARD
LM-8 BOARD
TR-11 BOARD
CAPSTAN MOTOR
DRUM MOTOR
TIMER/SENS MOTOR
TP ADJ D Q, IC
—91—
—92—

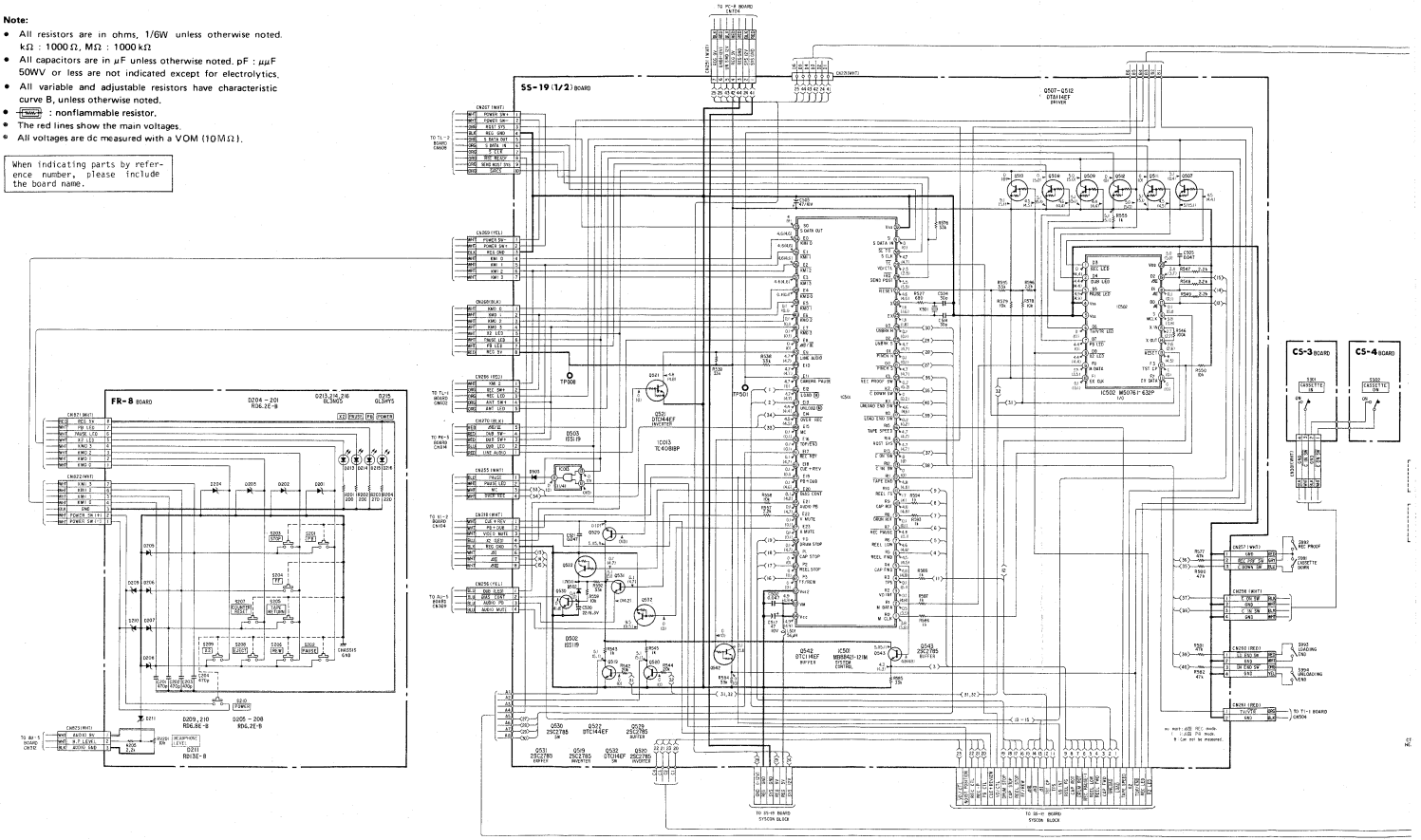
4-4. FR-8 (TAPE TRANSPORT SWITCH, POWER SWITCH), CS-3 (CASSETTE OFF), CS-4 (CASSETTE ON), JK-5 (CHANGER CONNECTOR), N (INF AMP), SS-19 (SYSTEM CONTROL), SS-21 (PLUNGER DRIVE, CTL AMP) SCHEMATIC DIAGRAM

– Ref. No. FR-8, CS-3, CS-4, JK-5, N BOARD : 10000 series, SS-19, SS-21 BOARD : 3000 series –

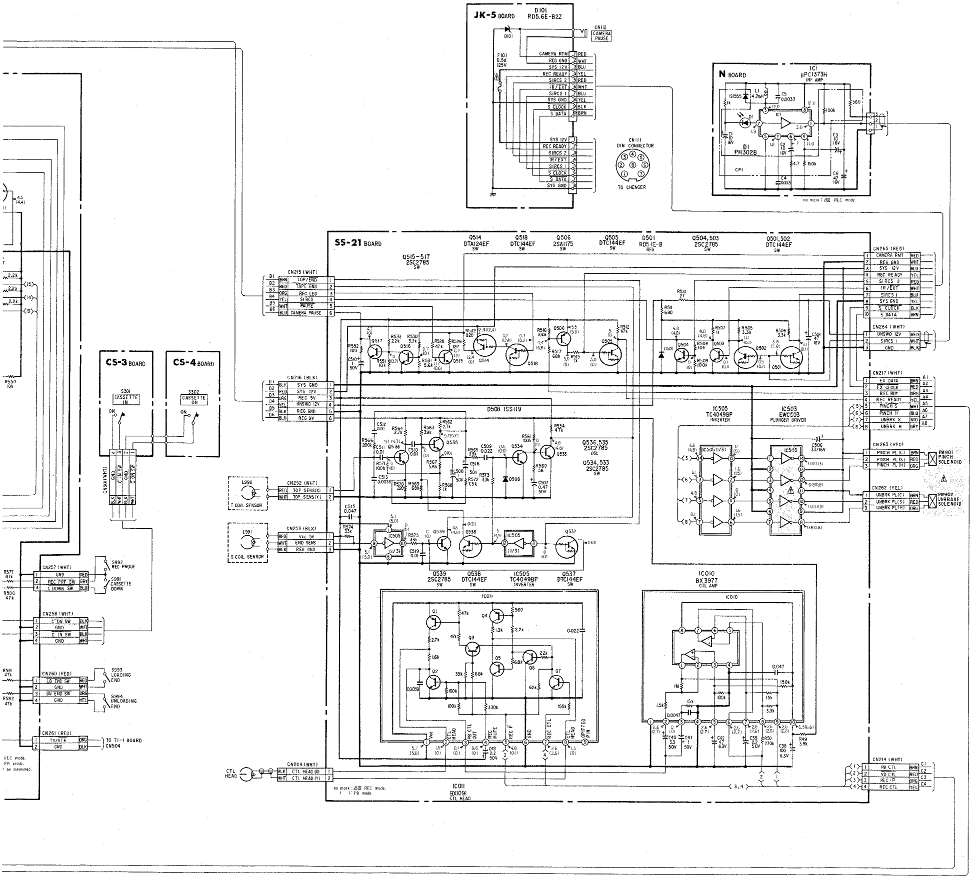
Note:

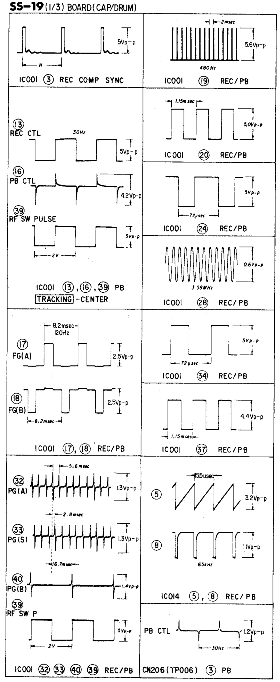
- All resistors are in ohms, 1/6W unless otherwise noted.
  kΩ : 1000 Ω, MΩ : 1000 kΩ
- All capacitors are in μF unless otherwise noted. pF : μμF
  50WV or less are not indicated except for electrolytics.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⚠ : nonflammable resistor.
- The red lines show the main voltages.
- All voltages are dc measured with a VOM (10MΩ).

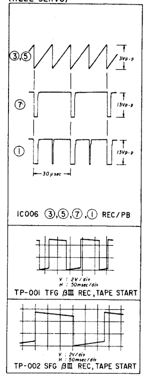
When indicating parts by reference number, please include the board name.



MP) SCHEMATIC DIAGRAM


JK-5 BOARD
D101 RD5.6E-B2Z
CN112 CAMERA PAUSE
CN111 DIN CONNECTOR
TO CHENGER
N BOARD
IC1 μPC1373H INF AMP
D1 PH302B
no mark : βIII REC mode.
SS-21 BOARD
Q514 DTA124EF SW
Q518 DTC144EF SW
Q506 2SA1175 SW
Q505 DTC144EF SW
D501 RD5.1E-B REG
Q504,503 2SC2785 SW
Q501,502 DTC144EF SW
Q515-517 2SC2785 SW
CN215 (WHT)
CN216 (BLK)
CN265 (RED)
CN264 (WHT)
CN217 (WHT)
CN263 (RED)
PM901 PINCH SOLENOID
CN262 (YEL)
PM902 UNBRAKE SOLENOID
CS-3 BOARD
S301 CASSETTE IN
CS-4 BOARD
S302 CASSETTE ON
D508 1SS119
Q536,535 2SC2785 OSC
Q534,533 2SC2785 SW
IC505 TC4049BP INVERTER
IC503 EWC503 PLUNGER DRIVER
L992 T COIL SENSOR
CN252 (WHT)
L991 S COIL SENSOR
CN253 (BLK)
Q539 2SC2785 SW
Q538 DTC144EF SW
IC505 TC4049BP INVERTER
Q537 DTC144EF SW
IC010 BX3977 CTL AMP
IC011 BX1091 CTL HEAD
CTL HEAD
CN209 (WHT)
CN214 (WHT)
CN257 (WHT)
S992 REC PROOF
S991 CASSETTE DOWN
CN258 (WHT)
CN260 (RED)
S993 LOADING END
S994 UNLOADING END
CN261 (RED)
TO TI-1 BOARD CN504
no mark : βIII REC mode.
( ) : PB mode.





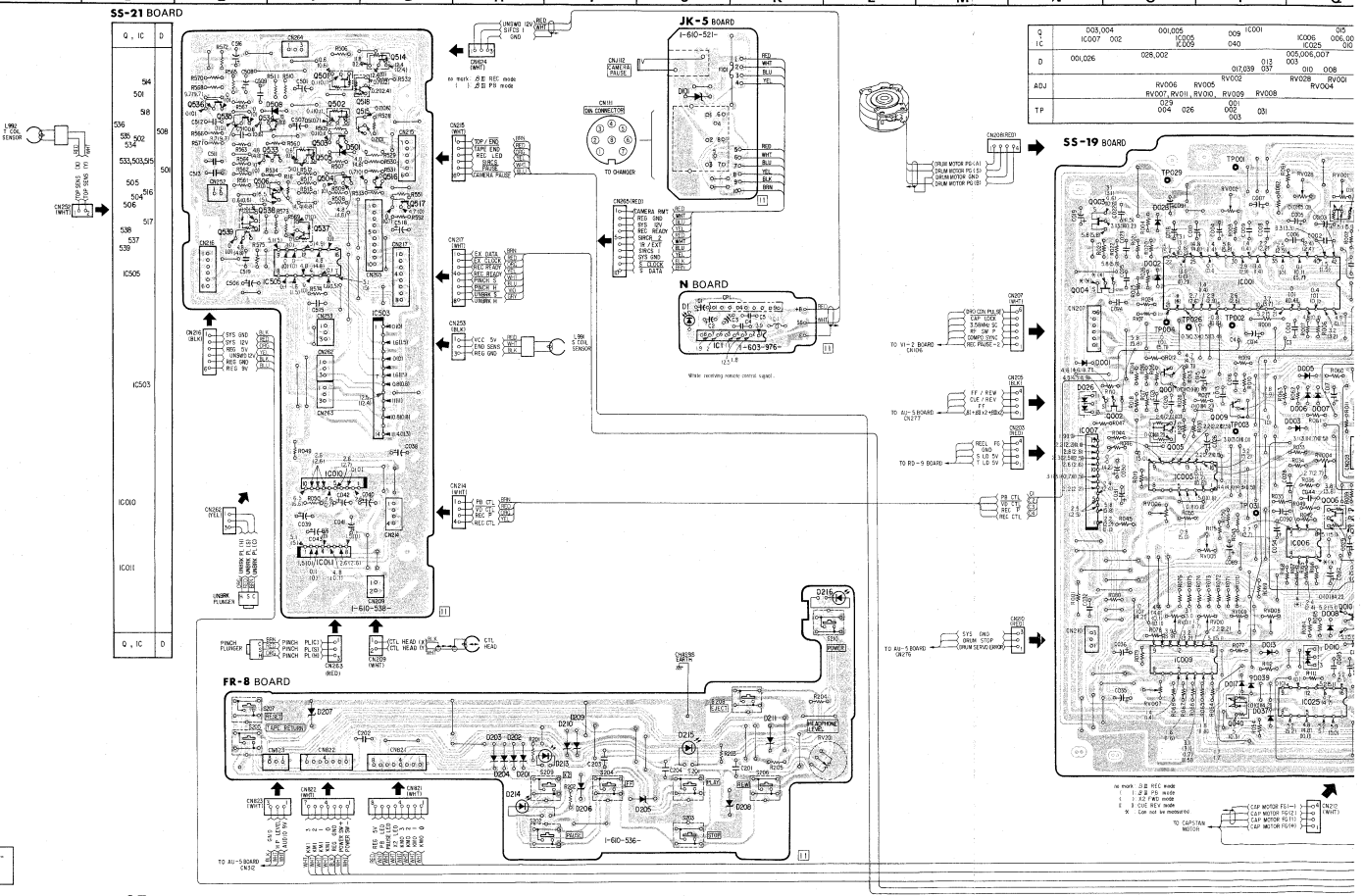
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

R-8 (TAPE TRANSPORT SWITCH, POWER SWITCH), CS-3 (CASSETTE OFF), CS-4 (CASSETTE ON), JK-5 (CHANGER CONNECTOR), N (INF AMP), SS-19 (SYSTEM CONTROL), SS-21 (PLUNGER DRIVE, CTL AMP) PRINTED WIRING BOARDS

Ref. No. FR-8, CS-3, CS-4, JK-5, N BOARD : 10000 series, SS-19, SS-21 BOARD : 3000 series –

A B C D E F G H I J K L M N O P Q



When indicating parts by reference number, please include the board name.

IRING BOARDS

O P Q R S T U V W X Y Z A1 B1 C1 D1

1 2 3 4 5 6 7 8 9 10

CS-3 BOARD

CS-4 BOARD

4-5. PK-2 (FUNCTION SWITCH), PK-3 (RELAY), MJ-2 (MIC JACK), AU-5 (AUDIO SIGNAL REC/PB PROCESS), HP-4 (HEADPHONE JACK), RV-9 (REC LEVEL) SCHEMATIC DIAGRAM

– Ref. No. PK-2, PK-3 BOARD : 8000 series, MJ-2, HP-4, RV-9 BOARD : 10000 series, AU-5 BOARD : 2000 series –

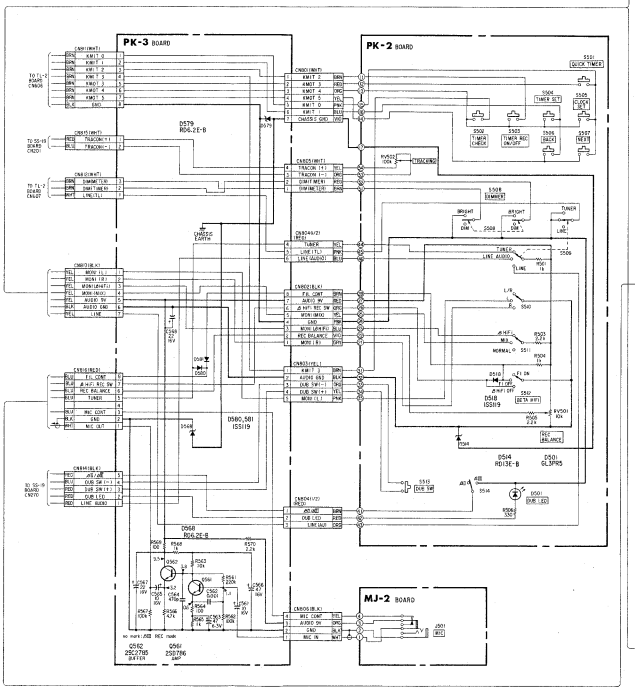
Note:

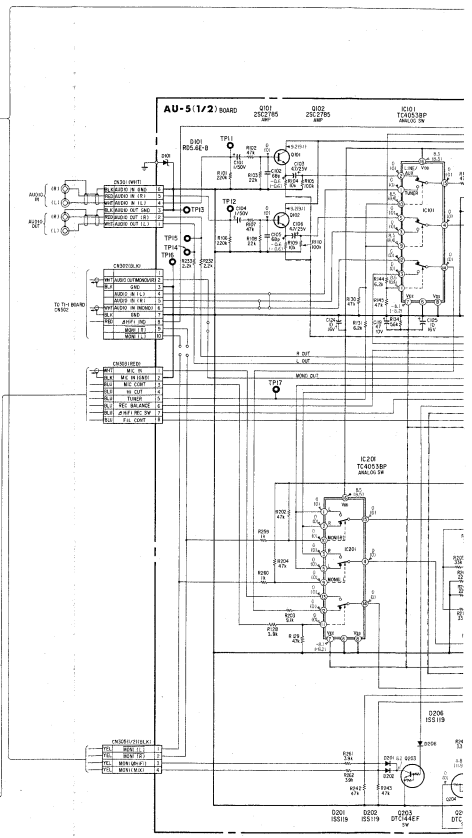
- All resistors are in ohms, 1/6W unless otherwise noted. kΩ : 1000Ω, MΩ : 1000kΩ
- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- : nonflammable resistor.
- The red lines show the main voltages.
- All voltages are dc measured with a VOM (10MΩ).

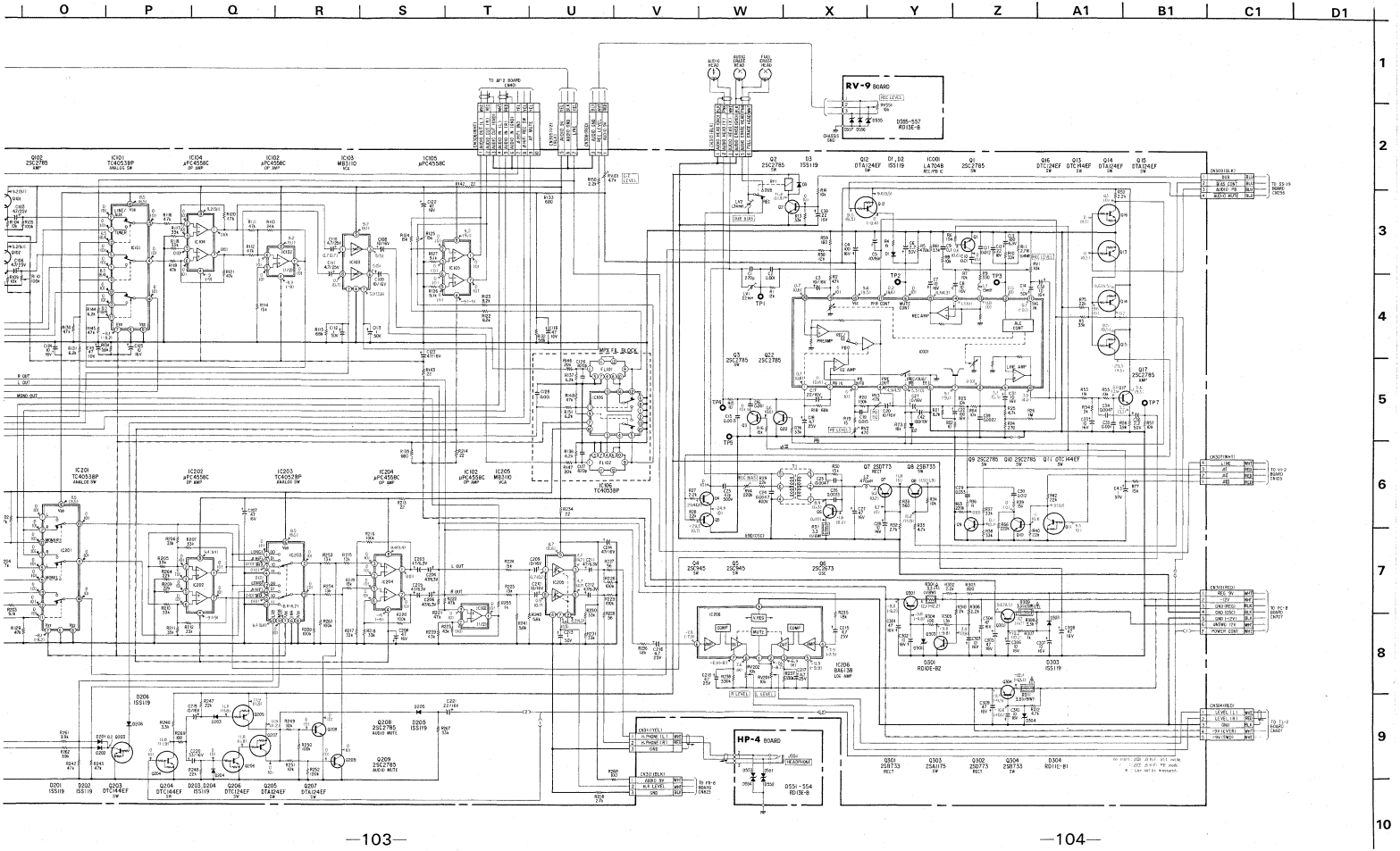
Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.



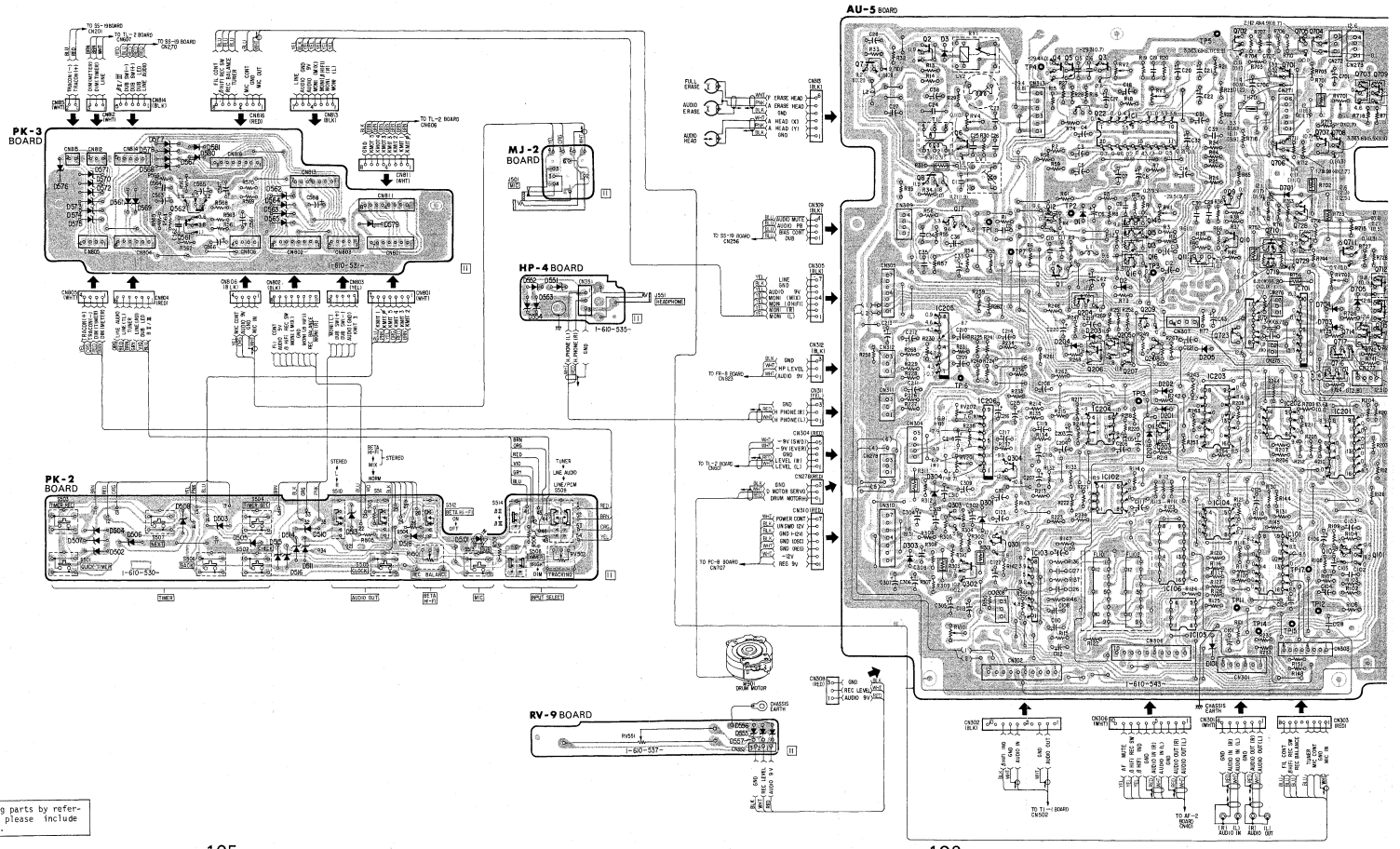



O P Q R S T U V W X Y Z A1 B1 C1 D1
1 2 3 4 5 6 7 8 9 10
RV-9 BOARD
HP-4 BOARD
IC101 TC40S38P
IC201 TC40S38P
IC106 TC40S38P
IC206 BA6138
Q1 2SC2785
Q2 2SC2785
Q3 2SC2785
Q4 2SC945
Q5 2SC945
Q6 2SD573
Q7 2SD773
Q8 2SB733
Q9 2SC2785
Q10 2SC2785
Q11 DTC144EF
Q12 DTA124EF
Q13 DTC144EF
Q14 DTA124EF
Q15 DTA124EF
Q16 DTC124EF
Q201 2SB733
Q202 2SA1175
Q203 2SD773
Q204 2SB733
Q205 RD15E-B1
Q206 RD15E-B2
D1 ISS119
D2 ISS119
D3 ISS119
D201 ISS119
D202 ISS119
D203 ISS119
D204 ISS119
D205 ISS119
D206 ISS119
D207 ISS119
D208 ISS119
D209 ISS119
D301 ISS119
D302 ISS119
D303 ISS119
D304 RD11C-B1
D551~554 RD15E-B
D555~557 RD15E-B
TO AP-3 BOARD
TO SS-19 BOARD
TO VI-2 BOARD
TO FC-8 BOARD
TO TI-2 BOARD
TO FB-8 BOARD
MPX F.B. BOARD
R OUT
L OUT
MONO OUT

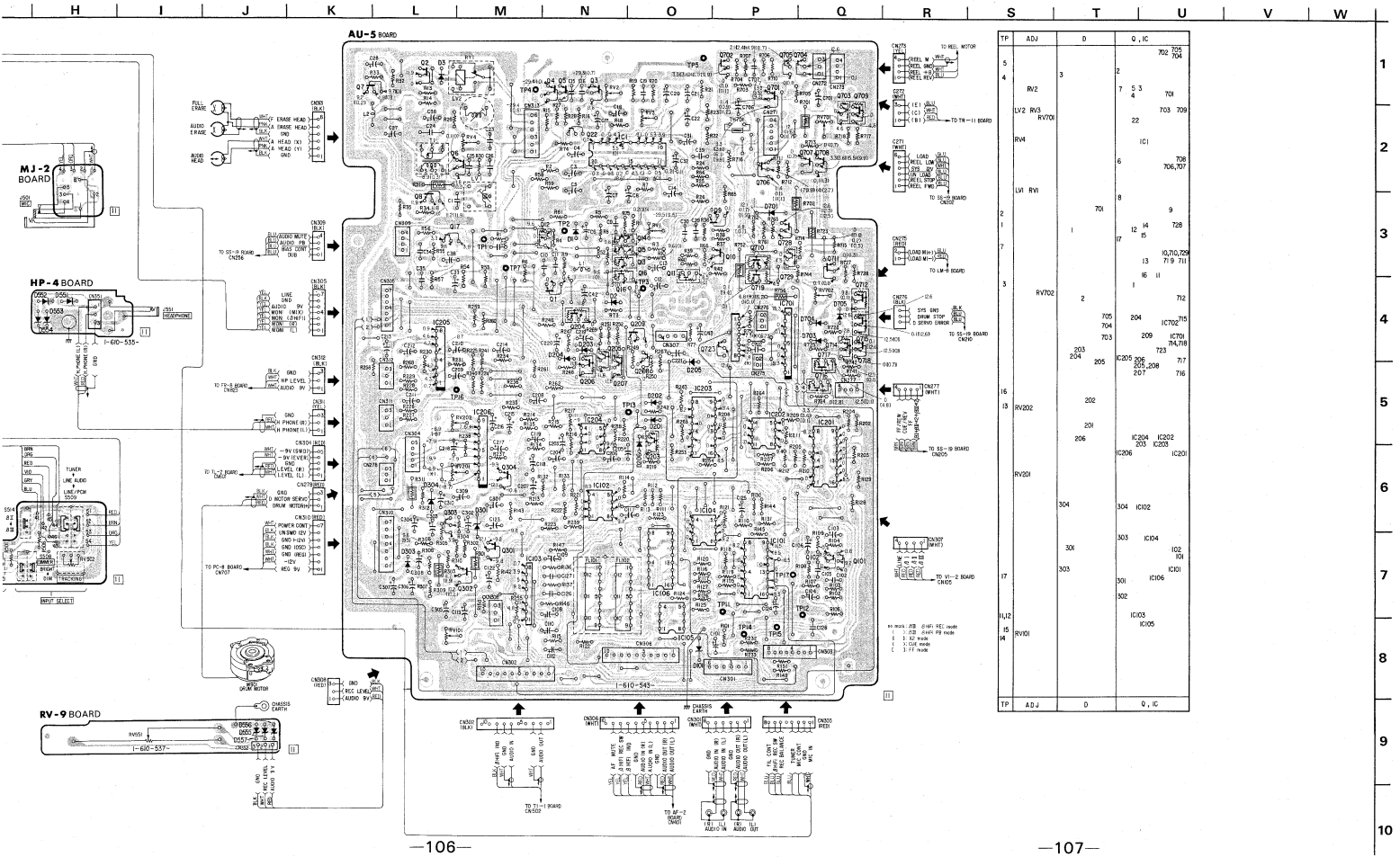
PK-2 (FUNCTION SWITCH), PK-3 (RELAY), MJ-2 (MIC JACK), AU-5 (AUDIO SIGNAL REC/PB PROCESS), HP-4 (HEADPHONE JACK), RV-9 (REC LEVEL) PRINTED WIRING BOARDS

Ref. No. PK-2, PK-3 BOARD : 8000 series, MJ-2, HP-4, RV-9 BOARD : 10000 series, AU-5 BOARD : 2000 series –

A B C D E F G H I J K L M N O P Q



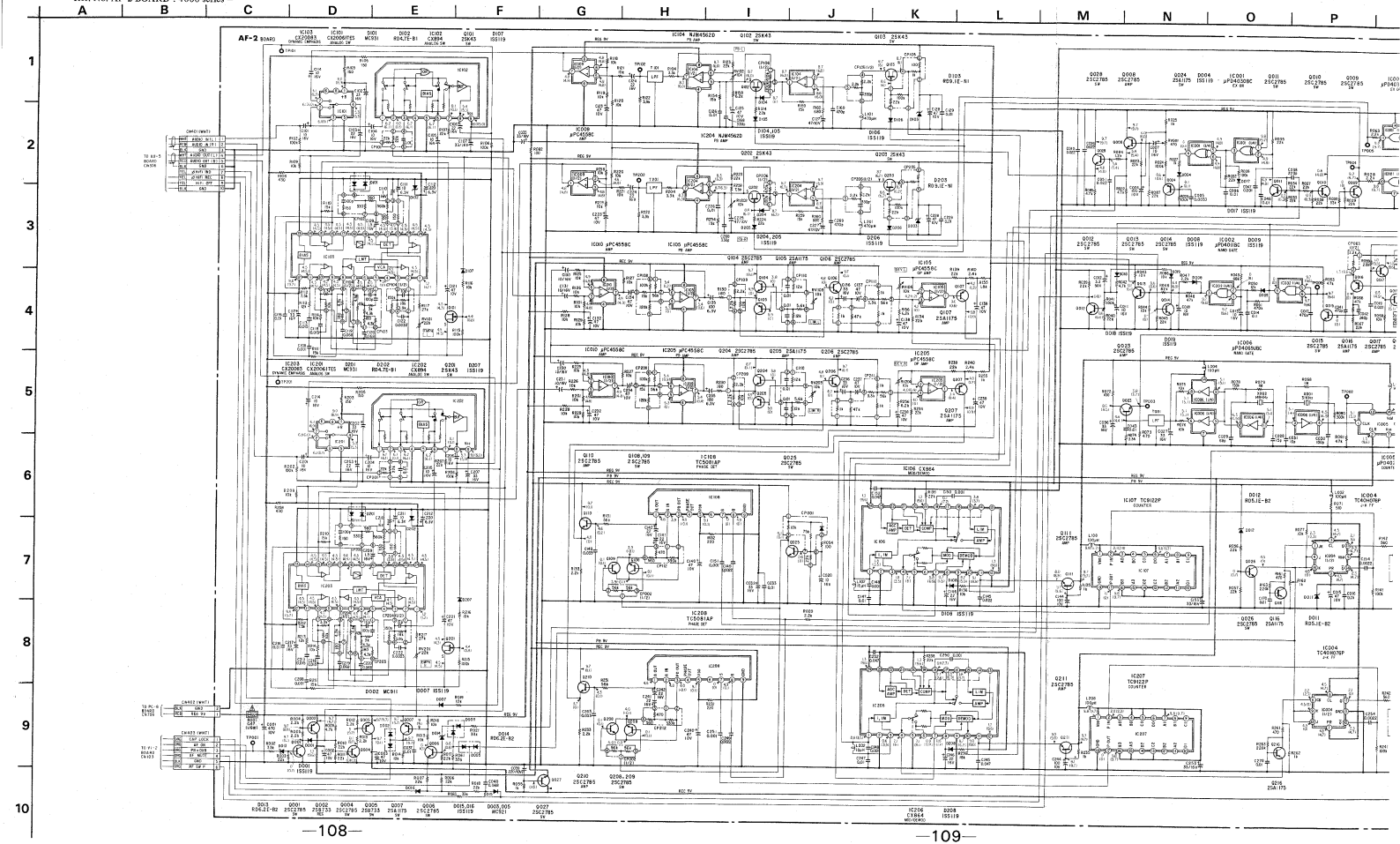
When indicating parts by reference number, please include the board name.

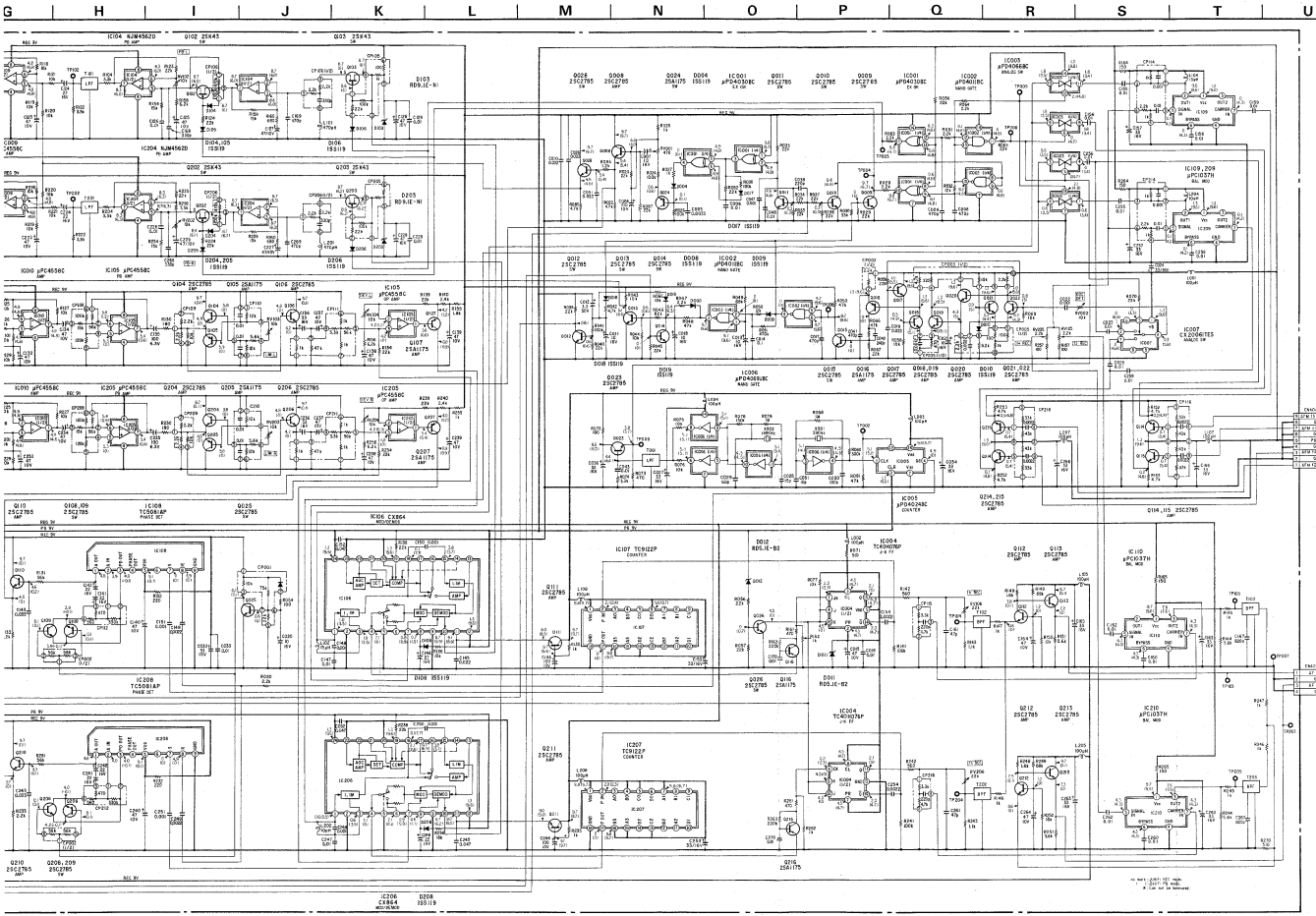

AU-5 BOARD
MJ-2 BOARD
HP-4 BOARD
RV-9 BOARD
TUNER + LINE AUDIO
LINE-PCM
INPUT SELECT
DRUM MOTOR
CHASSIS EARTH
TO REEL MOTOR
TO TR-11 BOARD
TO SS-19 BOARD CN202
TO LM-8 BOARD
TO SS-19 BOARD CN210
TO SS-19 BOARD CN205
TO VI-2 BOARD CN105
TO TU-2 BOARD CN501
TO PC-8 BOARD CN707
TO TU-1 BOARD CN503
TO AF-2 BOARD CN601
TO TR-8 BOARD CN803
TO SS-8 BOARD CN256
TO TU-1 BOARD CN502
—610-535—
—610-537—
—610-543—

4-6. AF-2 (AFM) SCHEMATIC DIAGRAM

– Ref. No. AF-2 BOARD : 4000 series –

AUDIO(2) AUDIO(2



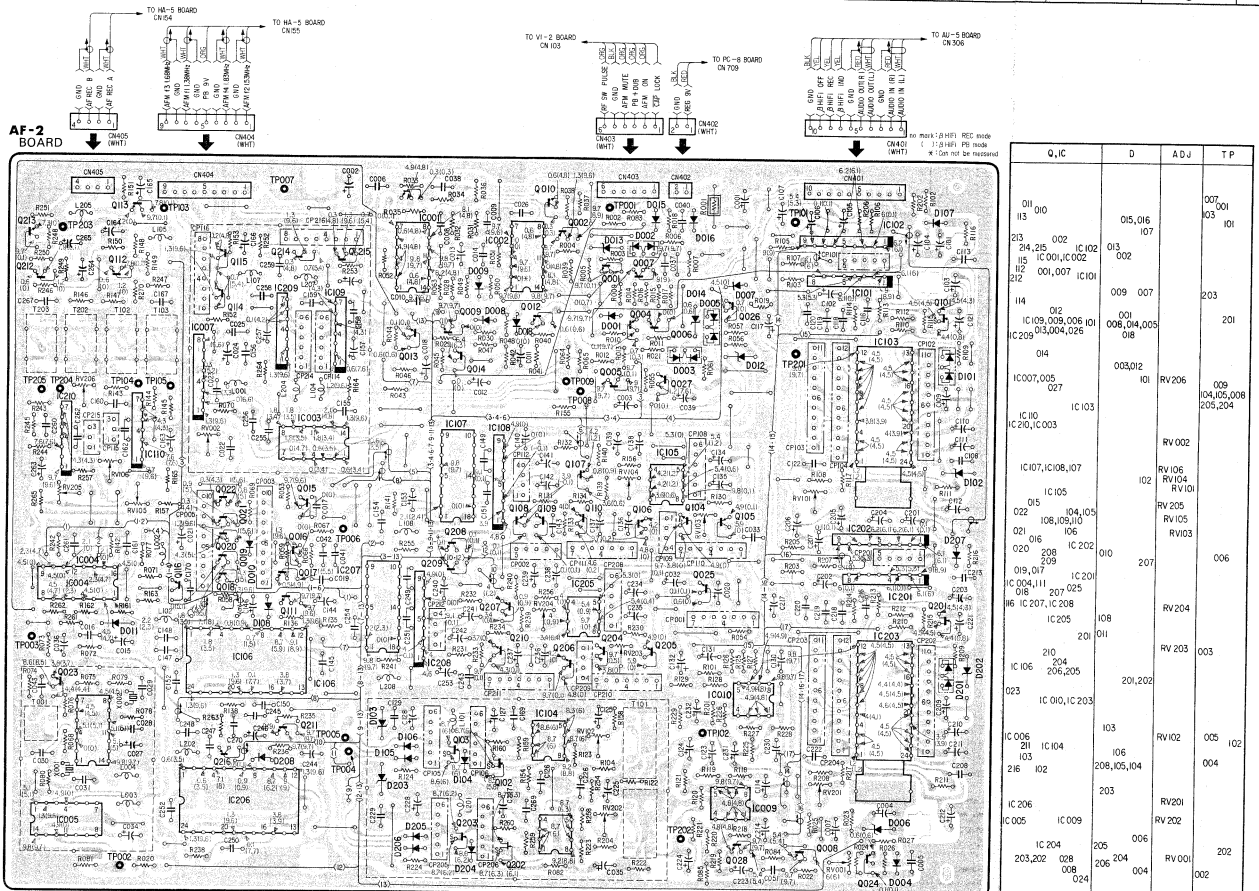


When indicating parts by reference number, please include the board name.

F-2 (AFM) PRINTED WIRING BOARDS

Ref. No. AF-2 BOARD : 4000 series –

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q



Q, IC	D	A D J	T P
011 010 113			007 001 103 101
213 002 214, 215 IC 102 IC 001, IC 002 112 115 001, 007 IC 101 212	015, 016 107 013 002		
114 012 IC 109, 009, 006 101 IC 209 013, 004, 026	009 007 001 008, 014, 005 018		203 201
014 IC 007, 005 027 IC 103	003, 012 101	RV 206	009 104, 105, 008 205, 204
IC 110 IC 210, IC 003		RV 002	
IC 107, IC 108, IC 107 IC 105		RV 106 RV 104 RV 101	
015 022 104, 105 108, 109, 110 021 106 016 020 IC 202 208 209 019, 017 IC 201 IC 004, 111 018 207 025 116 IC 207, IC 208 IC 205	102 010 207 108 011	RV 205 RV 105 RV 103	006
201 210 204 IC 106 206, 205 023 IC 010, IC 203	201, 202	RV 204 RV 203	003
IC 006 211 IC 104 103 216 102	103 106 208, 105, 104 203	RV 102	005 102 004
IC 206 IC 005 IC 009		RV 201 RV 202	
IC 204 203, 202 028 008 024	205 206 204 004	RV 001	202 002

Note:

- All resistors are kΩ : 1000 Ω, M
- All capacitors a 50WV or less
- All variable an curve B, unless
- : nonflan
- The red lines sho
- All voltages are

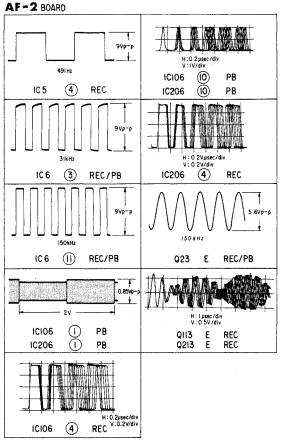
Note: The con ⚠ are part nu

Note: Les con marque remplac spécifié

O P Q R S T U V

ADJ	TP
	007 001
	103 101
	203
	201
RV206	009 104,105,008 205,204
RV002	
RV106 RV104 RV101	
RV205 RV105 RV103	
	006
RV204	
RV203	003
RV102	005 102
	004
RV201	
RV202	
RV001	202
	002
ADJ	TP

AF-2 BOARD



Note:

- All resistors are in ohms, 1/6W unless otherwise noted. kΩ : 1000Ω, MΩ : 1000kΩ
- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⟨NRW⟩ : nonflammable resistor.
- The red lines show the main voltages.
- All voltages are dc measured with a VOM (10MΩ).

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

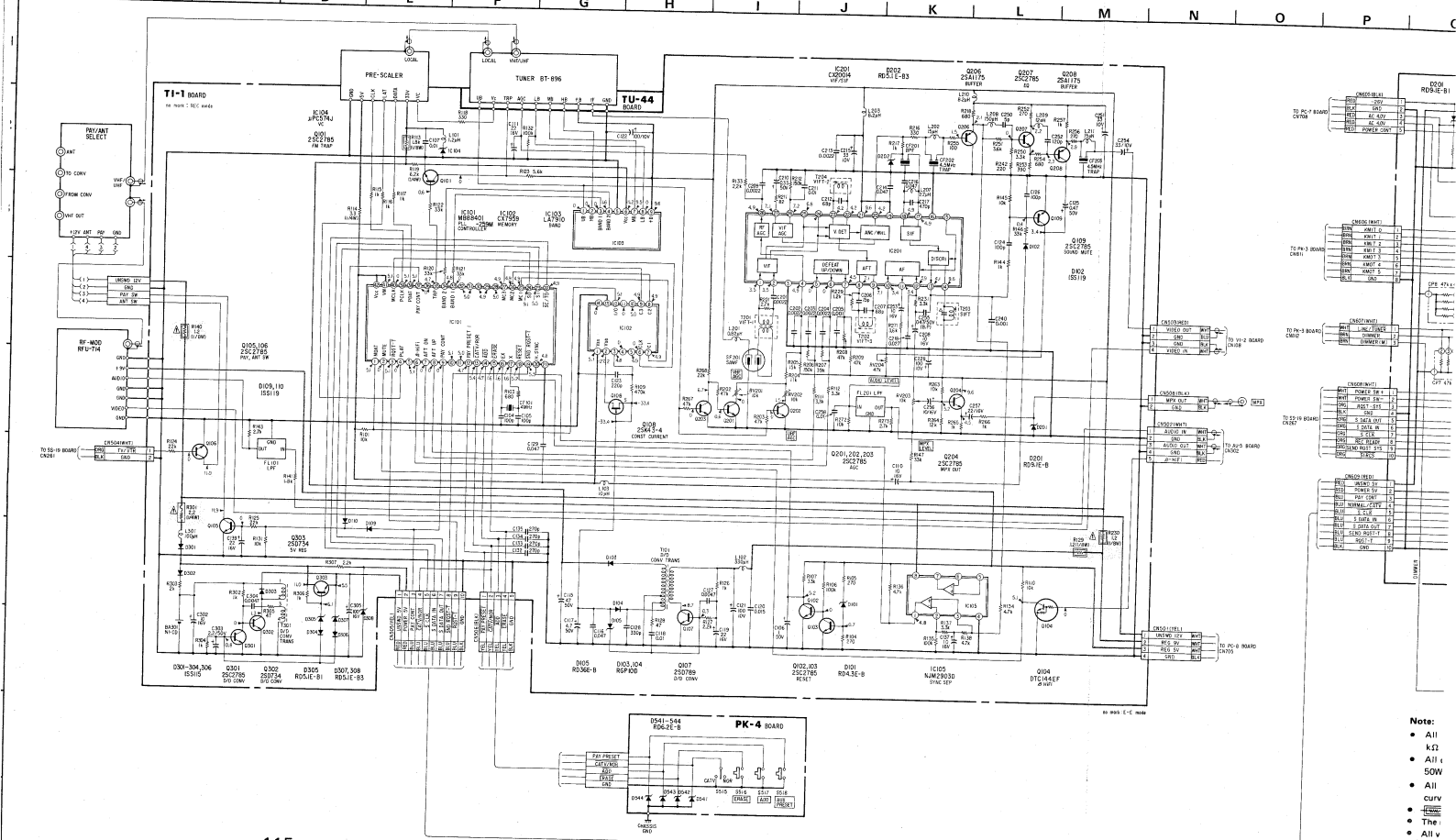
Note: Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

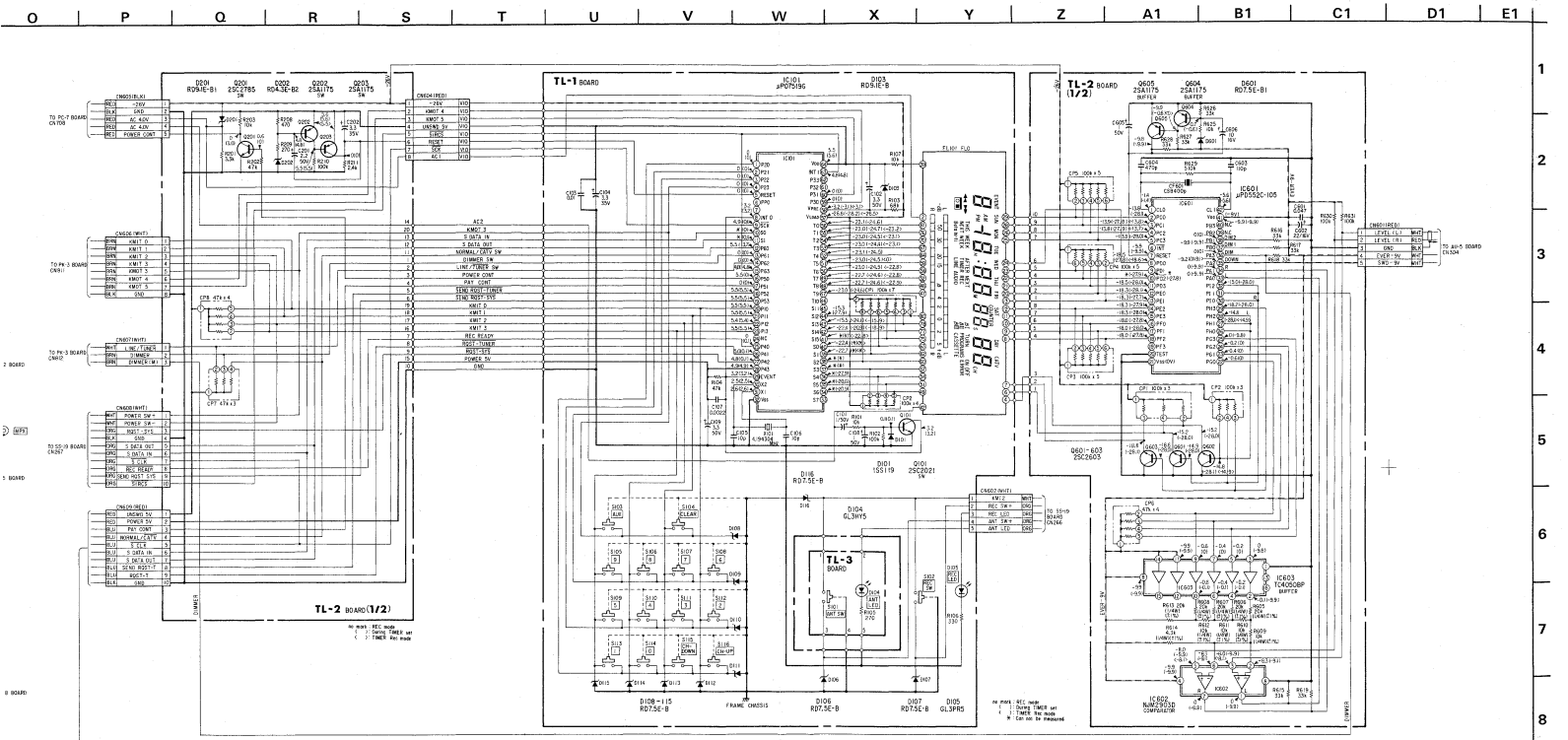
1 2 3 4 5 6 7 8 9 10

4-7. TU-44 (TUNER), TI-1 (VIF, SIF, AFT, AGC), PK-4 (CHANNEL PRESETTING), TL-1 (TIMER, CHANNEL SWITCH), TL-2 (POWER CONT, RESET SIGNAL GEN, LEVEL METER DRIVE), TL-3 (ANT SWITCH) SCHEMATIC DIAGRAM

– Ref. No. TU-44 BOARD : 5000 series, PK-4 BOARD : 8000 series, TL-1, TL-2, TL-3 BOARD : 6000 series –



DIAGRAM



Note:

- All resistors are in ohms, 1/6W unless otherwise noted. kΩ : 1000 Ω, MΩ : 1000 kΩ
- All capacitors are in μF unless otherwise noted. pF : μμF 50WV or less are not indicated except for electrolytics.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- ⚠ : nonflammable resistor.
- The red lines show the main voltages.
- All voltages are dc measured with a VOM (10MΩ).

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

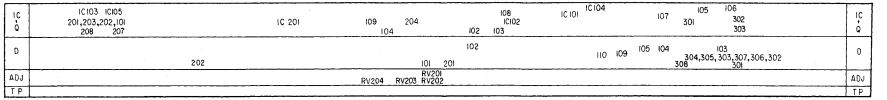
When indicating parts by reference number, please include the board name.

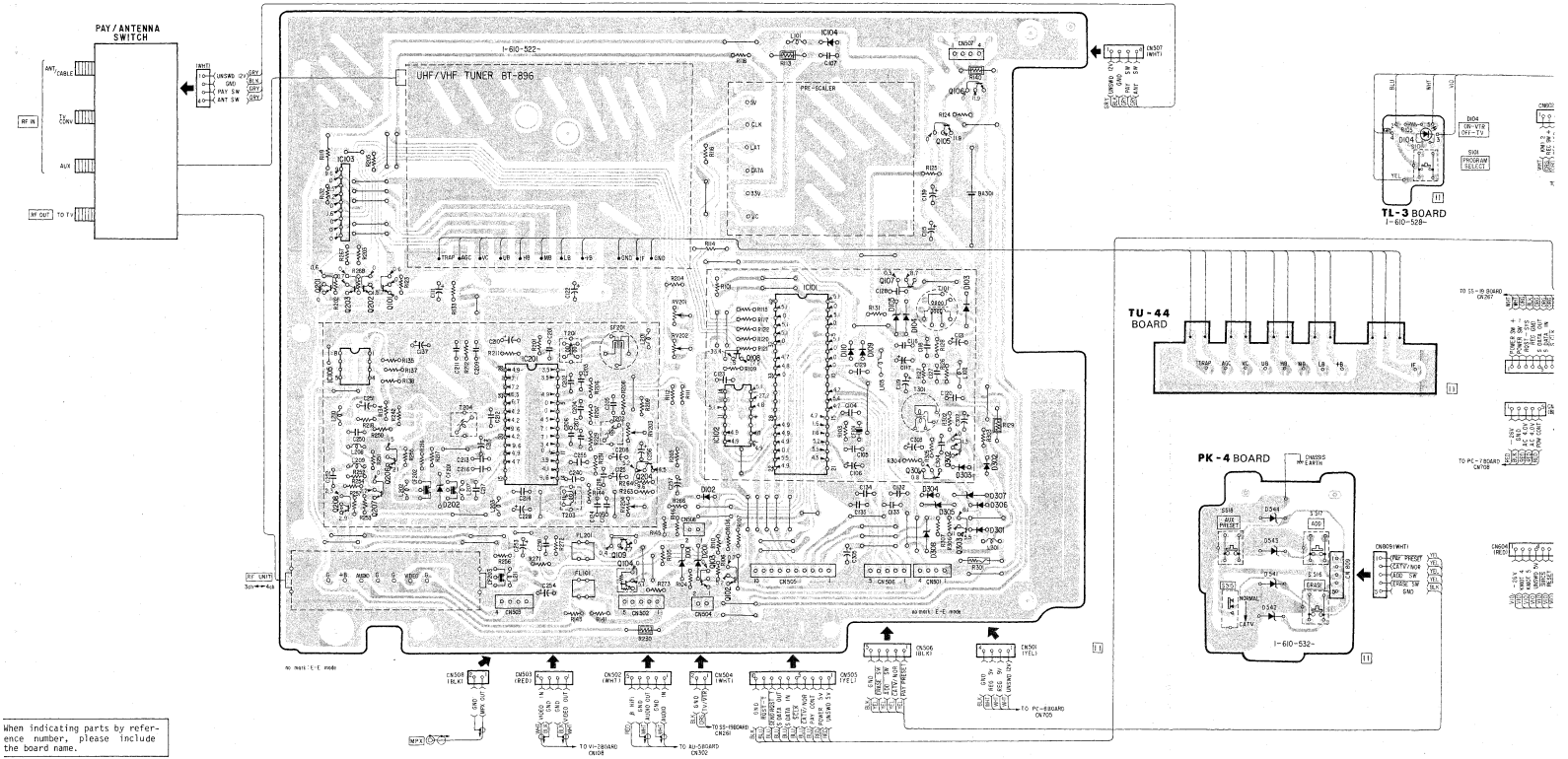
I4 (TUNER), TI-1 (VIF, SIF, AFT, AGC), PK-4 (CHANNEL PRESETTING), TL-1 (TIMER, CHANNEL SWITCH), TL-2 (POWER CONT, RESET SIGNAL GEN, LEVEL METER DRIVE), TL-3 (ANT SWITCH) PRINTED WIRING BOARDS

f. No. TU-44 BOARD : 5000 series, PK-4 BOARD : 8000 series, TL-1, TL-2, TL-3 BOARD : 6000 series –

A B C D E F G H I J K L M N O P Q

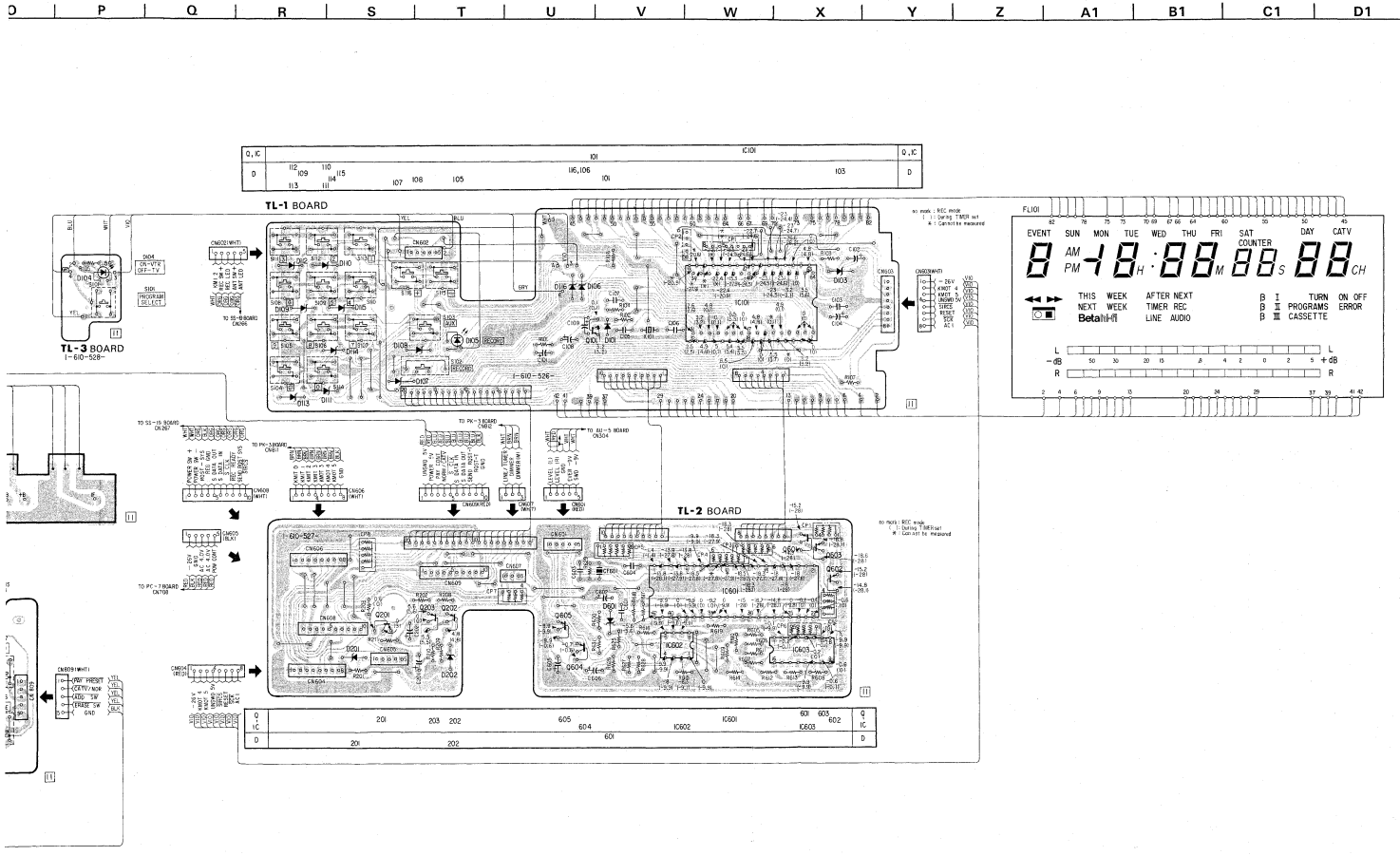
TI - 1 BOARD





When indicating parts by reference number, please include the board name.

RDS


TL-1 BOARD
TL-2 BOARD
TL-3 BOARD
I-610-528-
I-610-526-
FL101
EVENT SUN MON TUE WED THU FRI SAT
COUNTER
DAY CATV
THIS WEEK
NEXT WEEK
Betahi-fi
AFTER NEXT
TIMER REC
LINE AUDIO
TURN ON OFF
PROGRAMS ERROR
CASSETTE

4-8. PC-6 (LINE FILTER), PC-7 (RECT), PC-8 (POWER SUPPLY), PC-10 (POWER SUPPLY) SCHEMATIC DIAGRAM

– Ref. No. PC-6, PC-7, PC-8, PC-10 BOARD : 7000 series –

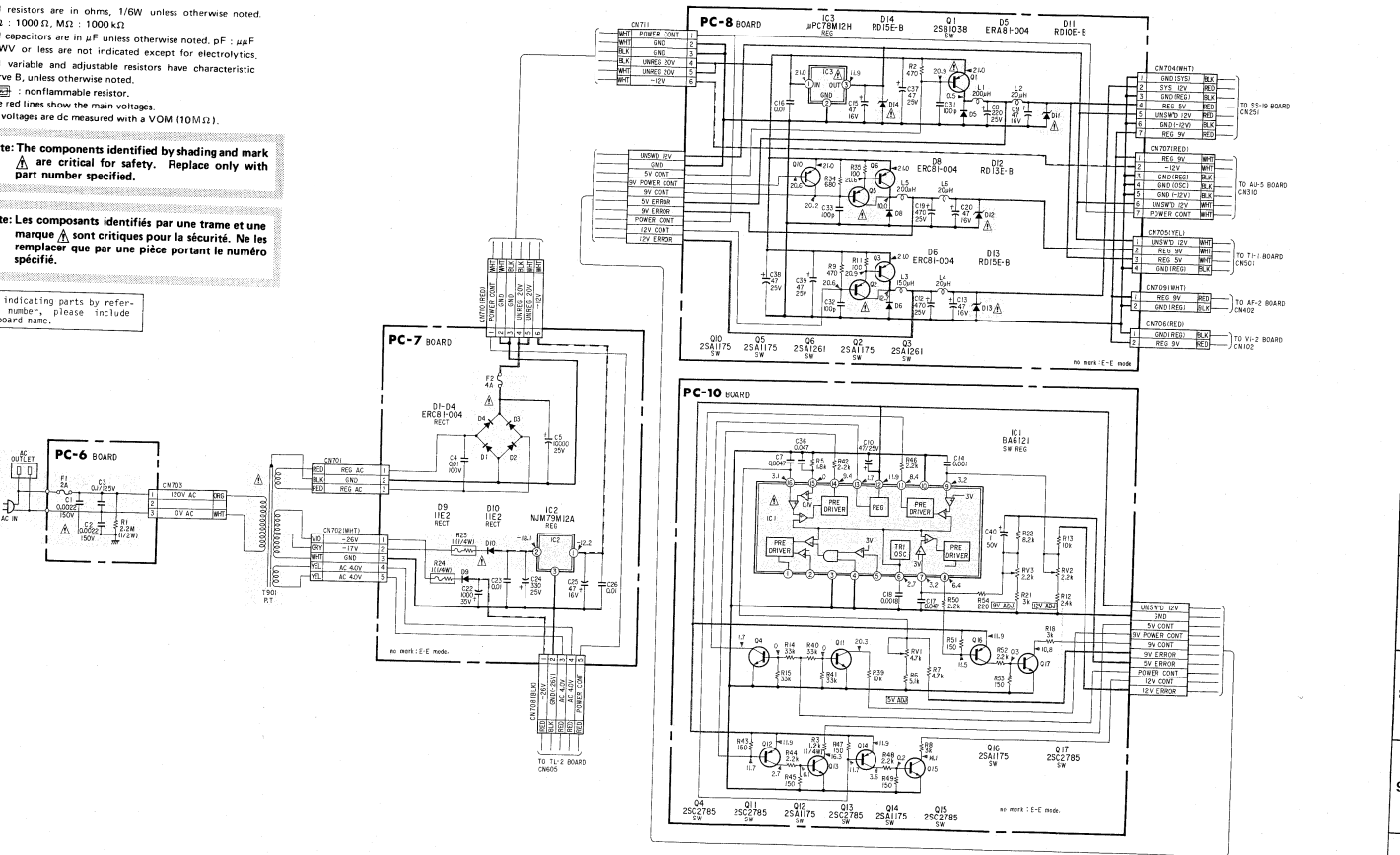
Note:

- All resistors are in ohms, 1/6W unless otherwise noted.
  kΩ : 1000Ω, MΩ : 1000kΩ
- All capacitors are in μF unless otherwise noted. pF : μμF
  50WV or less are not indicated except for electrolytics.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- (FUSIBLE) : nonflammable resistor.
- The red lines show the main voltages.
- All voltages are dc measured with a VOM (10MΩ).

Note: The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

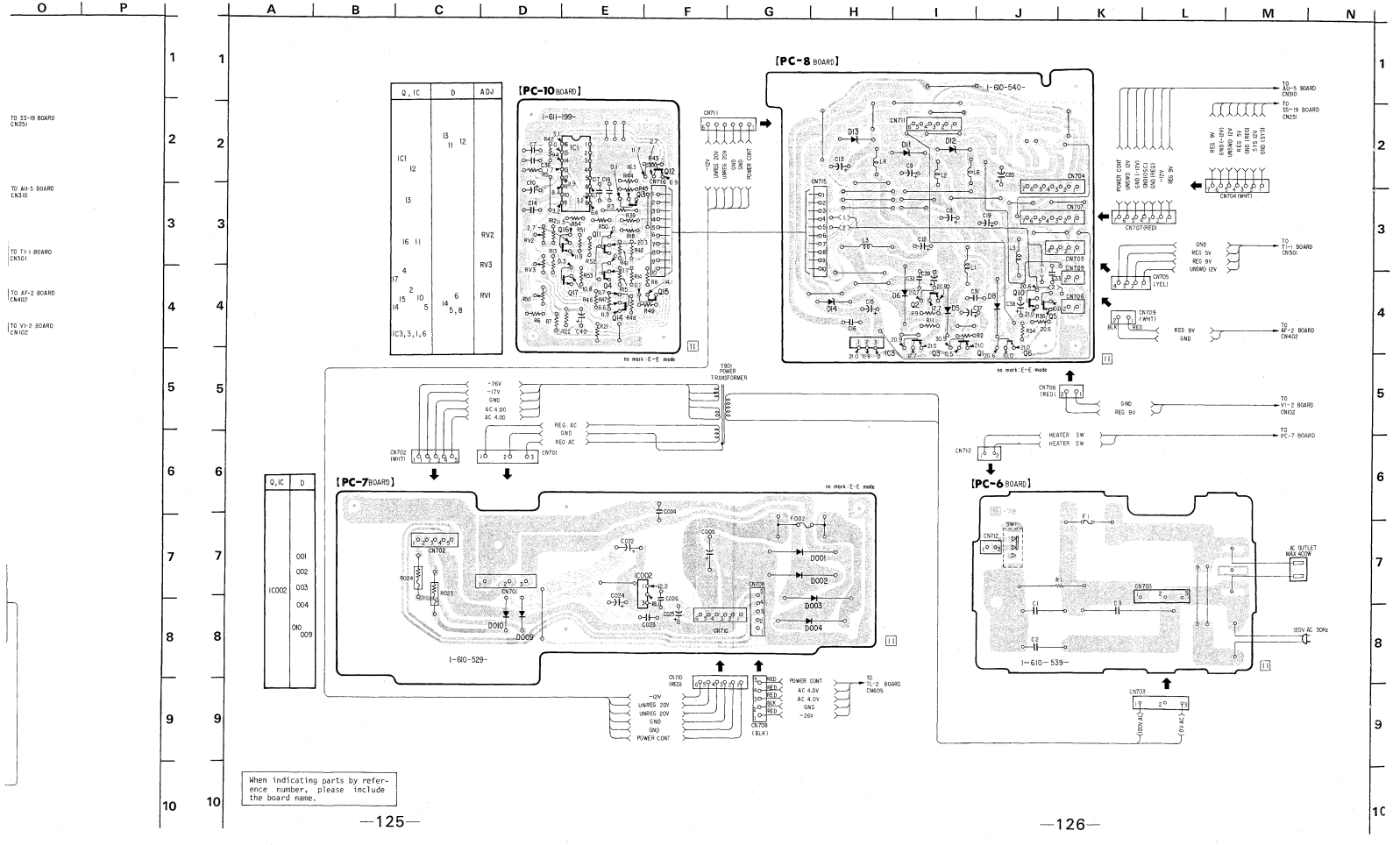
Note: Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.



PC-6 (LINE FILTER), PC-7 (RECT), PC-8 (POWER SUPPLY), PC-10 (POWER SUPPLY) PRINTED WIRING BOARDS

– Ref. No. PC-6, PC-7, PC-8, PC-10 BOARD : 7000 series –



-9. SEMICONDUCTORS

BA6138
CX892
CX894
TC5081AP

BX1013
BX1090
BX1091
BX3977
BX3978
BX3983

(Marking side view)

CX194B-0

CX822
CX20083

CX864
CX867
CX868

CX862
CX863A
CX866A

CA7910

BA6121
CX865
CX870A
TC4049BP
TC4051BP
TC4052BP
TC4053BP
TC4528BP
TC40H076P
TL494CN
μPD4050BC

CX869A
CX20014

CX882
TC9122P

CX7959
TC4001BP
TC4011BP
TC4013BP
TC4024BP
TC4030BP
TC4066BP
TC4069BC
TC4071BP
TC4081BP
μPC339C
μPD4011BC
μPD4024BC
μPD4030BC
μPD4066BC
μPD4069BC

CX7944
CX20008
CX20061

MB88401-259M

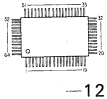
NJM2903D
NJM4558
NJM4558D
NJM4562D
μPC358C
μPC393C
μPC4558
μPC4558C

NJM79M12A

μPC574J

μPC577H
μPC1037H

μPD7519G



μPC78M12H

2SA874

2SA1048
2SA1048-R
2SA1115
2SA1115F

2SA1175
2SA1175-R

2SA1261
2SB1038

2SB733
2SB733-4

2SA772
2SB772

2SB649

2SC945
2SD734
2SD786

2SD788
2SD789

2SD773
2SD774

2SC2673

2SC2458
2SC2458GR
2SC2603
2SC2603F

2SC2785
2SC2785-E
2SC2785-H

2SC945P

2SD1164

2SD313HP

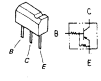
2SK43-4

2SK118

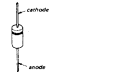
2SK381

DTC114EF
DTC124EF
DTC144EF

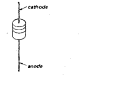
DTA114EF
DTA124EF



10E1
10E2
11E2
ERA81-004
GP08B
GP08D



1SS119
1SS148



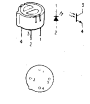
1SS133
EQA02-05A5
EQA02-05D5
EQA02-06E5
EQA02-09A1
EQA02-15A-B1
ERC81-004
RD4.3E-B
RD4.3E-B2
RD4.7E-B1
RD4.7E-B2
RD5.1E-B
RD5.1E-B1
RD5.1E-B2
RD5.1E-B3
RD5.6E-B
RD6.2E-B
RD6.2E-B2
RD7.5E-B
RD7.5E-B1
RD9.1E-B
RD9.1E-B1
RD9.1E-N1
RD10E-B
RD10E-B2
RD11E-B1
RD13E-B
RD15E-B1
RD15E-B2
RD18E-B
RD36E-B

ERB81-004

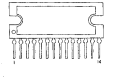
V06C
V19C

GL-3HY5
GL-3NG5
GL-3PR5

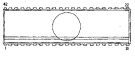
GP-2S02B



M54543L
EWC503



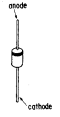
MB88401



MC911
MC921

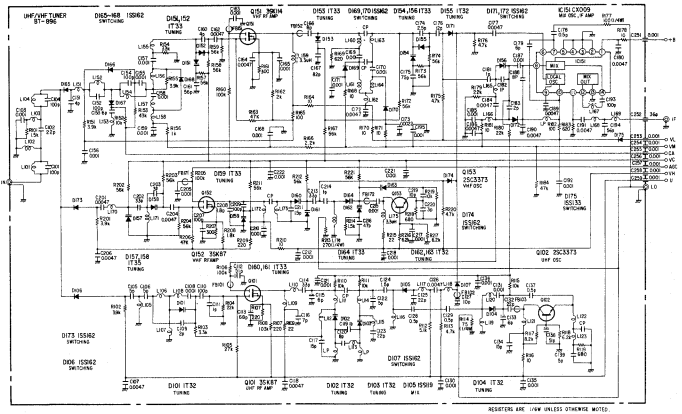
MC931

RGD10D



4-10. UHF/VHF TUNER SCHEMATIC DIAGRAM

— BT-896 —



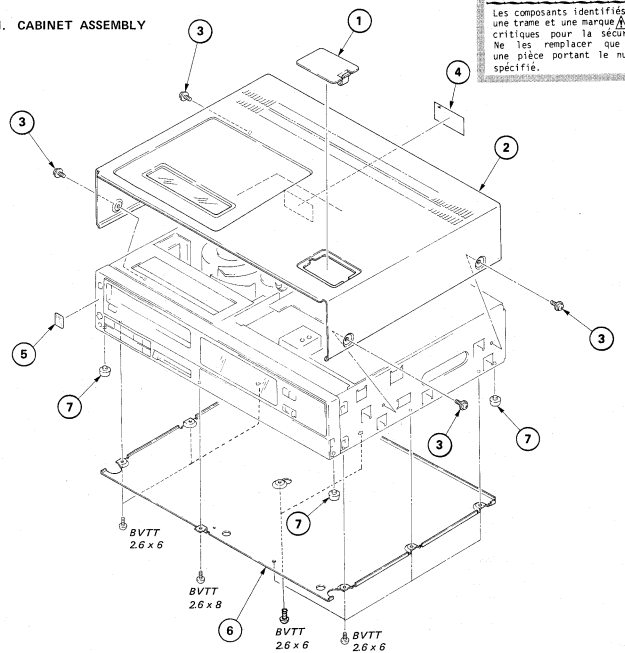
SECTION 5
EXPLODED VIEWS

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " ♦ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

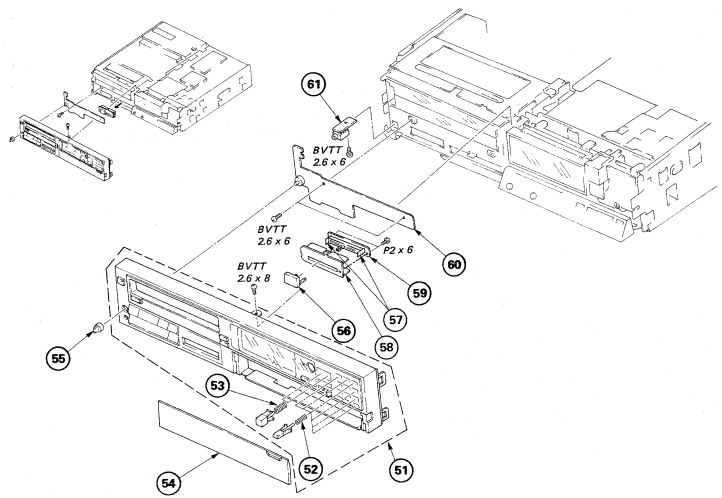
Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

5-1. CABINET ASSEMBLY



No.	Part No.	Description	Remark
1	4-342-123-51	DOOR, PRESET	
2	X-3682-007-0	CASE ASSY, UPPER	
3	3-703-354-11	SCREW (OS), CASE, CLAW	
4	♦3-682-083-00	LABEL, MODEL NUMBER (US MODEL)	
	♦3-682-084-00	LABEL, MODEL NUMBER (CANADIAN MODEL)	
5	3-703-713-01	STICKER, SONY SYMBOL (10)	
6	3-682-070-00	PLATE, BOTTOM	
7	3-670-155-00	LEG	

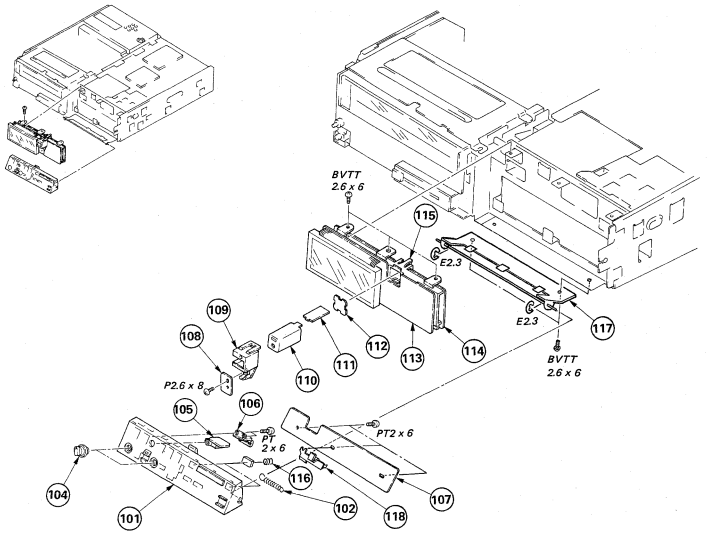
5-2. FRONT PANEL ASSEMBLY



No.	Part No.	Description	Remark
51	X-3682-008-0	PANEL ASSY, FRONT	52,53
52	2-217-533-00	SPRING, COMPRESSION	
53	4-861-707-00	SPRING, COMPRESSION	
54	X-3682-006-0	LID ASSY, POCKET	
55	3-679-815-00	KNOB, CONTROL	
56	3-682-026-00	KNOB, CONTROL, LEVEL	

No.	Part No.	Description	Remark
57	♦:3-682-142-00	SHEET, BLIND	
58	♦:3-682-027-00	HOLDER, COMTROL, LEVEL	
59	♦:1-610-537-00	RV-9 BOARD	
60	♦:1-610-536-00	FR-8 BOARD	
61	♦:1-610-535-00	HP-4 BOARD	

5-3. TIMER BLOCK ASSEMBLY



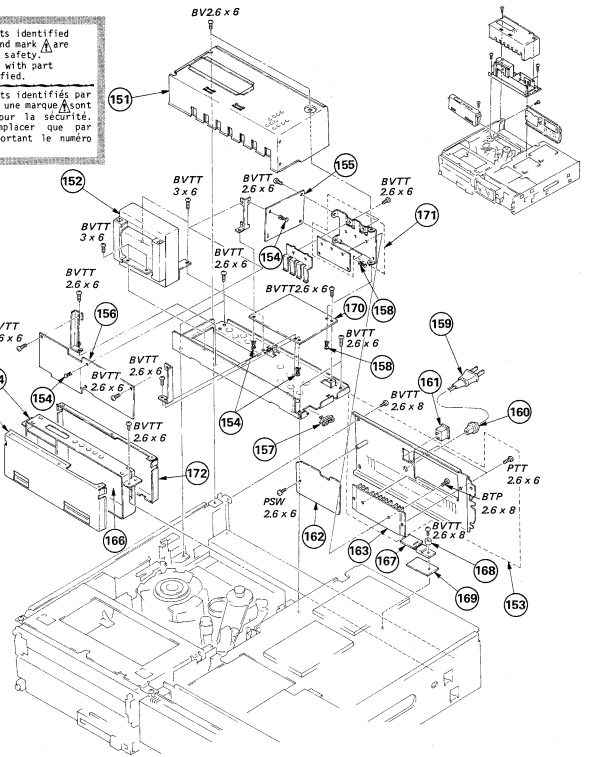
No.	Part No.	Description	Remark
101	A-6734-181-C	PANEL BLOCK ASSY, POCKET	
102	3-661-382-00	SPRING, TENSION	
104	3-682-029-00	KNOB, CONTROL, BALANCE	
105	♣:1-610-533-00	MJ-2 BOARD	
106	♣:3-682-038-00	HOLDER, MICROPHONE JACK	
107	♣:1-610-530-00	PK-2 BOARD	
108	♣:1-610-528-00	TL-3 BOARD	
109	♣:3-682-058-00	FRAME (2), TIMER	

No.	Part No.	Description	Remark
110	♣:4-342-117-00	CASE, SHIELD (MAIN), R	
111	♣:1-606-794-00	N BOARD	
112	♣:4-342-118-00	LID, SHIELD CASE, R	
113	♣:A-6725-321-A	TL-1 BOARD, COMPLETE	
114	♣:A-6725-322-A	TL-2 BOARD, COMPLETE	
115	♣:3-682-068-00	FRAME (1), TIMER	
116	3-682-133-00	SPRING, COMPRESSION	
117	♣:X-3682-004-3	HINGE, POCKET	
118	♣:3-682-144-00	PLATE, EARTH, POKET	

5-4. POWER BLOCK ASSEMBLY

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

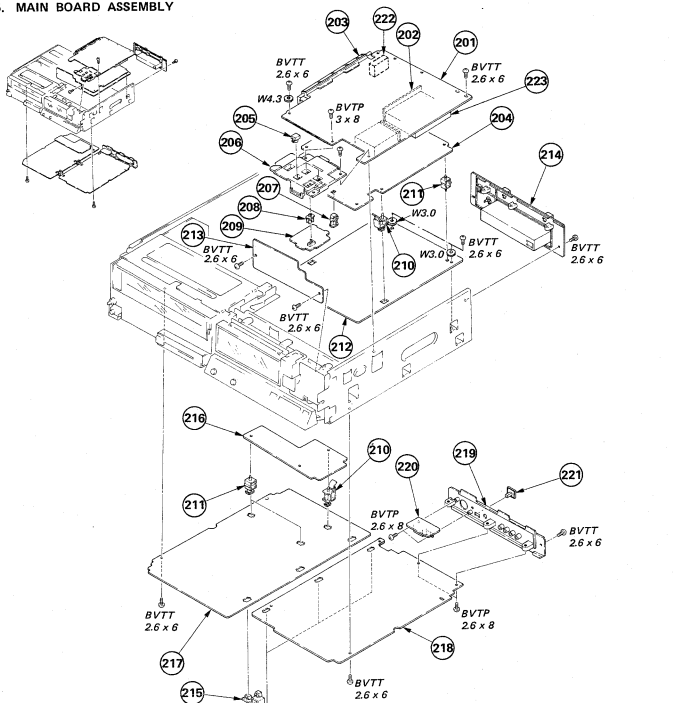
Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



No.	Part No.	Description	Remark
151	♣:X-3862-031-0	CASE, SHIELD ASSY, POWER	
152	⚠:1-447-618-11	TRANSFORMER, POWER	
153	X-3682-009-0	PANEL ASSY, POWER	163
154	3-531-576-11	RIVET	
155	♣:1-611-199-00	PC-10 BOARD	
156	♣:1-610-529-00	PC-7 BOARD	
157	♣:4-310-385-00	HOLDER, WIRE	
158	3-531-576-31	RIVET (DIA. 3), NYLON	
159	⚠:1-551-964-32	CORD, POWER	
160	⚠:2-231-019-01	CLAMPER, CORD	
161	⚠:1-526-882-11	OUTLET, AC	

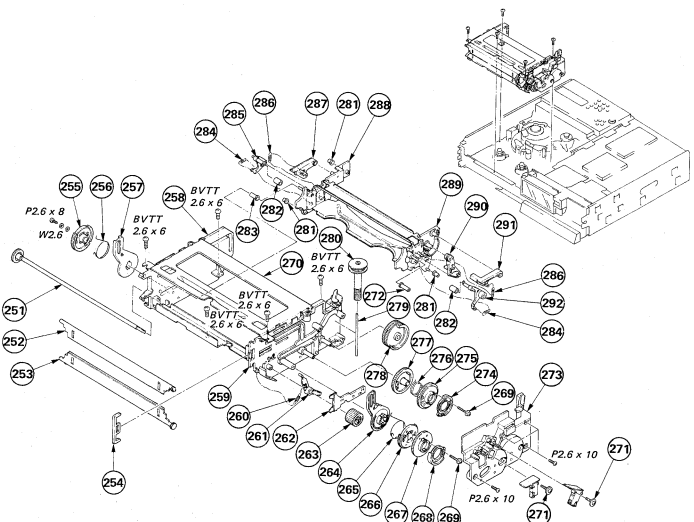
No.	Part No.	Description	Remark
162	♣:1-610-539-00	PC-6 BOARD	
163	♣:3-682-106-00	FIN, POWER	
164	♣:3-682-100-00	CASE (MAIN), SHIELD, HEAD AMP	
165	♣:X-3682-012-0	LID ASSY, UPPER, SHIELD CASE, HA	
166	♣:A-6711-448-A	HA-5 BOARD, COMPLETE	
167	♣:1-610-534-00	TR-11 BOARD	
168	2-832-007-00	BUSHING (K), INSULATING	
169	♣:3-682-024-00	SHEET (A), INSULATING	
170	♣:A-6723-205-A	PC-8 BOARD, COMPLETE	
171	X-3682-013-0	HEAT SINK ASSY	
172	♣:3-682-099-00	LID, LOWER, SHIELD CASE, HA	

5-5. MAIN BOARD ASSEMBLY



No.	Part No.	Description	Remark
201	♣:A-6721-173-A	TI-1 BOARD, COMPLETE	
202	♣:1-610-523-00	TU-44 BOARD	
203	♣:3-682-054-00	HINGE, TU PC BOARD	
204	♣:A-6713-177-A	AU-5 BOARD, COMPLETE	
205	2-291-041-00	BUTTON (A), PRESET	
206	3-682-065-00	PANEL, PRESET	
207	♣:3-669-610-00	SPACER	
208	3-670-148-11	KEY (P), SLIDE	
209	♣:1-610-532-00	PK-4 BOARD	
210	♣:3-682-047-00	HOLDER (A), PC BOARD	
211	♣:3-682-080-00	HINGE (A), PCB	
212	♣:A-6713-176-A	AF-2 BOARD, COMPLETE	
213	♣:1-610-531-00	PK-3 BOARD	
214	1-536-809-00	TERMINAL BOARD, ANTENNA SELECT	
215	♣:3-682-081-00	HOLDER, PCB	
216	♣:A-6728-754-A	SS-21 BOARD, COMPLETE	
217	♣:A-6714-188-A	SS-19 BOARD, COMPLETE	
218	♣:A-6711-449-A	VI-2 BOARD, COMPLETE	
219	1-536-816-00	TERMINAL BOARD, CONNECTOR	
220	♣:1-610-521-00	JK-5 BOARD	
221	3-679-968-00	COVER, PCM SELECTION	
222	1-464-281-11	RFUNIT, COLOR	
223	1-463-470-00	TUNER, ET (BT-896)	

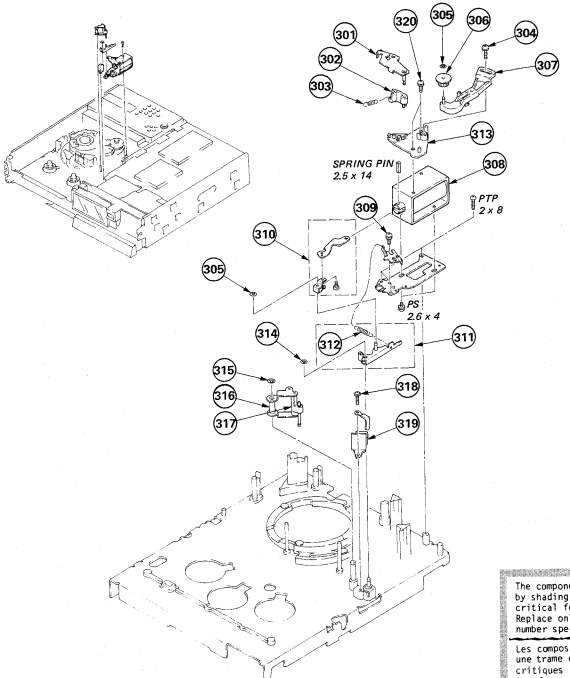
5-6. FRONT LOADING ASSEMBLY



No.	Part No.	Description	Remark
251	X-3679-105-0	SHAFT ASSY, GEAR, MIDWAY	
252	3-679-222-00	DOOR, UPPER	
253	3-679-223-00	DOOR, LOWER	
254	3-679-137-00	HOLDER, OUTER DOOR	
255	3-679-226-00	GEAR (LEFT), ARM, DRIVING	
256	3-679-145-00	SPRING (LEFT)	
257	3-679-220-00	ARM (LEFT), DRIVING	
258	♣:3-679-266-00	PLATE, SIDE, LEFT	
259	♣:3-679-265-00	PLATE, SIDE, RIGHT	
260	3-679-189-00	SPRING, TENSION	
261	3-679-134-00	ARM, SWITCHING, DOOR	
262	3-679-221-00	PLATE, RACK, SWITCHING, DOOR	
263	3-679-126-00	GEAR (RIGHT), MIDWAY	
264	3-679-219-00	ARM (RIGHT), DRIVING	
265	3-679-144-00	SPRING (RIGHT)	
266	3-679-225-00	GEAR (RIGHT), ARM, DRIVING	
267	3-679-125-00	GEAR, DRIVING	
268	3-679-138-00	CAM (CASSETTE ON)	
269	3-669-480-21	+ PTPWH 2	
270	♣:3-682-626-00	PLATE, TOP	
271	3-669-480-00	+ PTPWH 2	

No.	Part No.	Description	Remark
272	3-679-128-00	ROLLER (RIGHT), DRIVING	
273	♣:3-679-214-00	HOLDER, GEAR, WORM	
274	3-679-124-00	CAM (CASSETTE OFF)	
275	3-679-218-00	GEAR (B), LIMITER	
276	3-679-139-00	SPRING	
277	3-679-217-04	GEAR (A), LIMITER	
278	3-679-216-00	WHEEL, WORM	
279	3-679-123-00	SHAFT, GEAR, WORM	
280	3-679-215-00	GEAR, WORM	
281	3-679-143-00	ROLLER	
282	3-679-135-00	RUBBER, RETAINER, CASSETTE	
283	3-679-316-00	ROLLER (LEFT), DRIVING	
284	3-679-298-00	SPRING, TENSION	
285	3-679-130-00	LEVER (LEFT), RETAINER, CASSETTE	
286	3-679-188-00	SPRING, TENSION	
287	3-679-132-00	LEVER (LEFT), PREVENTION	
288	♣:X-3679-107-0	PLATE ASSY, SIDE, BASE LEFT	
289	♣:X-3679-106-0	PLATE ASSY, SIDE, BASE RIGHT	
290	3-679-133-00	ARM, LID OPEN	
291	3-679-131-00	LEVER (RIGHT), PREVENTION	
292	3-679-129-00	LEVER(RIGHT), RETAINER, CASSETTE	

5-7. CHASSIS ASSEMBLY (1)



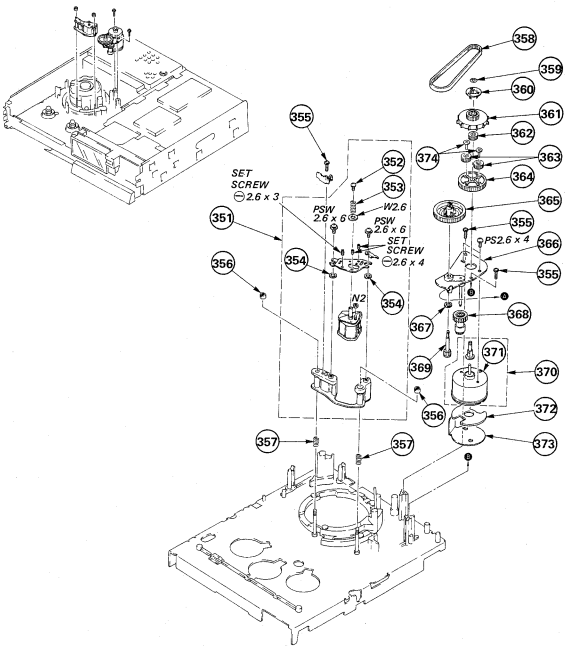
The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

No.	Part No.	Description	Remark
301	♦:X-3679-123-0	ARM ASSY, STOPPER	
302	♦:3-679-251-00	LIMITER, STOPPER	
303	3-508-108-XX	SPRING, TENSION	
304	3-669-607-00	+PSW (SMALL ROUND) 2.6	
305	3-669-465-00	WASHER (1.5), STOPPER	
306	3-679-307-00	GEAR, TENSION	
307	♦:X-3679-145-0	ARM ASSY, CAR, TENSION	
308	⚠:1-454-349-31	SOLENOID, PLUNGER (PINCH) PM90I	
309	3-669-607-31	+PSW (SMALL ROUND) (2.6)	
310	X-3679-152-0	ARM (B) ASSY, PINCH SOLENOID	

No.	Part No.	Description	Remark
311	♦:X-3669-379-0	ARM (P) ASSY, PINCH LIMITER	312
312	3-465-159-XX	SPRING, TENSION	
313	♦:3-679-117-05	CHASSIS, ARM, STOPPER	
314	3-669-595-00	WASHER (2), STOPPER	
315	3-669-596-00	WASHER (2.3), STOPPER	
316	♦:X-3679-108-0	ARM ASSY, PRESS, PINCH	317
317	♦:X-3679-110-0	LINK ASSY, JOINT, PRESS ARM	
318	3-669-480-11	+ PTPWH 2	
319	1-464-250-00	SENSOR, T COIL L992	
320	3-681-231-00	SCREW (+PW 2.6X8), TAPPING	

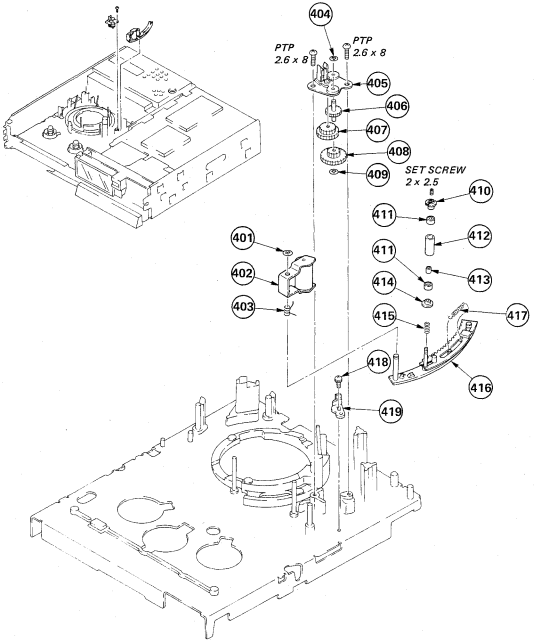
5-8. CHASSIS ASSEMBLY (2)



No.	Part No.	Description	Remark
351	A-6761-061-A	ACE ASSY	352,353,354
352	3-679-362-00	SCREW (M2X4) PAN	
353	♦:3-669-316-00	SPRING, COMPRESSION	
354	3-669-598-00	WASHER, CTL	
355	3-669-480-11	+ PTPWH 2	
356	3-669-318-00	NUT, ADJUSTMENT, GUIDE	
357	3-669-317-00	SPRING, COMPRESSION	
358	3-679-119-00	BELT, SYNCHRO	
359	3-669-596-00	WASHER (2.3), STOPPER	
360	3-679-140-00	FLANGE, GEAR, INTERNAL	
361	3-679-101-00	GEAR, INTERNAL	
362	3-679-104-00	GEAR	

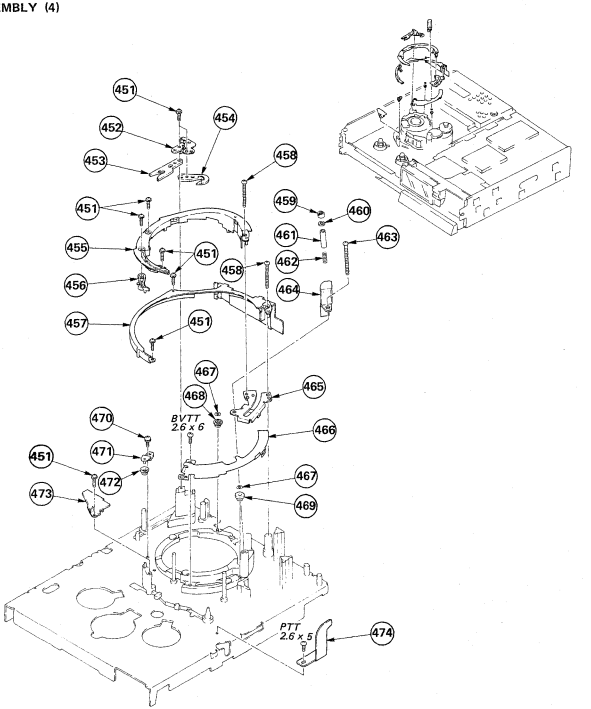
No.	Part No.	Description	Remark
363	X-3679-177-0	GEAR ASSY, PLANET	
364	X-3679-111-0	CARRIER ASSY	
365	3-679-115-00	GEAR (LARGE), LOADING	
366	♣:X-3679-112-0	CHASSIS ASSY, GEAR, PLANET	
367	3-701-439-11	WASHER	
368	X-3669-321-0	GEAR (C) ASSY	
369	3-679-114-00	GEAR (SMALL), LOADING	
370	A-6737-118-A	MOTOR ASSY, L	371
371	1-541-163-00	MOTOR (LOADING MOTOR) M904	
372	♣:1-605-071-00	LM-B BOARD	
373	♣:3-669-613-00	INSULATOR, L MOTOR	
374	♣:X-3679-176-0	SHAFT ASSY, PLANET GEAR	

5-9. CHASSIS ASSEMBLY (3)



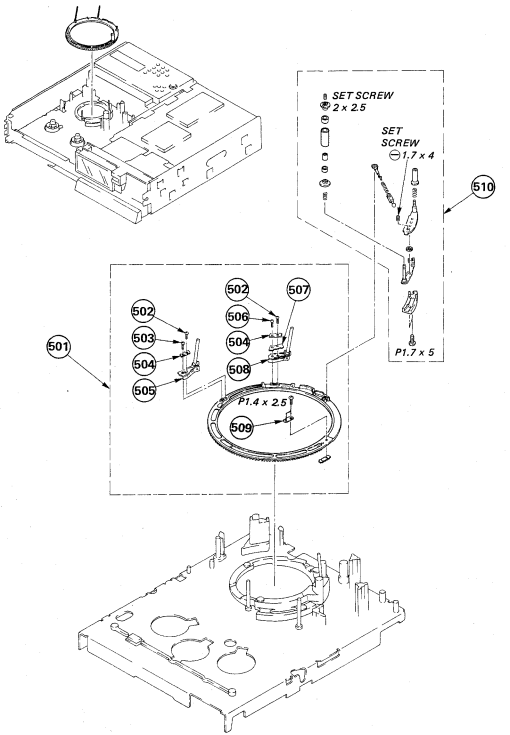
No.	Part No.	Description	Remark
401	3-669-596-00	WASHER (2.3), STOPPER	
402	X-3669-307-6	ARM ASSY, PINCH ROLLER	
403	3-669-444-00	SPRING, TORSION	
404	3-669-595-00	WASHER (2), STOPPER	
405	X-3679-147-0	CHASSIS (B) ASSY, DRIVE GEAR	
406	X-3679-148-0	GEAR (F) ASSY (B)	
407	3-669-338-00	GEAR (E)	
408	3-669-337-00	GEAR (D)	
409	3-669-465-00	WASHER (1.5), STOPPER	
410	3-669-431-00	FLANGE (UPPER), GUIDE	
411	3-669-443-00	BEARING, BALL (NO FLANGE)	
412	3-669-438-00	ROLLER, GUIDE	
413	3-657-941-31	SPACER (2X2.5)	
414	3-669-432-00	FLANGE (LOWER), GUIDE	
415	3-669-452-00	SPRING, COMPRESSION	
416	X-3679-151-0	GEAR ASSY (B), SLIDER	
417	3-549-014-00	SPRING, TENSION	
418	3-669-607-31	+PSW (SMALL ROUND) (2.6)	
419	▲3-679-165-00	STOPPER, SLIDER	

5-10. CHASSIS ASSEMBLY (4)



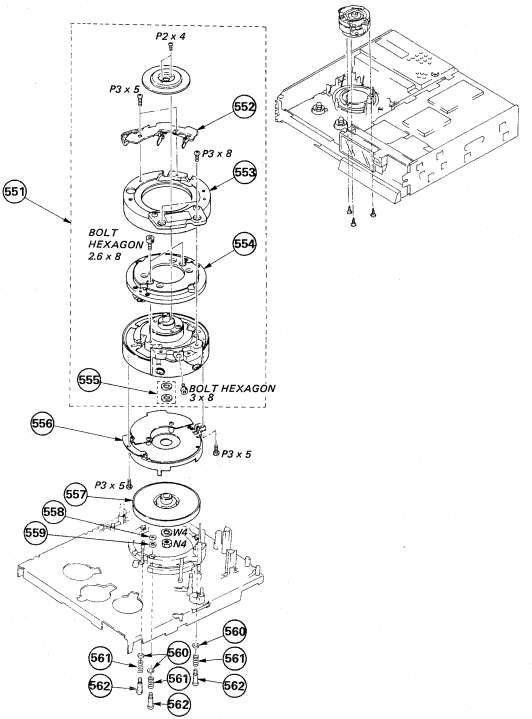
No.	Part No.	Description	Remark
451	3-669-480-11	+ PTPWH 2	
452	♣:3-672-540-00	PLATE, GROUND, TAPE GUIDE	
453	♣:3-669-618-00	PLATE (2), ADJUST	
454	♣:3-672-507-00	PLATE (3-1), ADJUSTMENT	
455	♣:3-679-290-00	GUIDE (1-YA), SHUTTLE	
456	X-3669-327-0	ARM ASSY, SWITCH, ULE	
457	♣:3-669-585-00	GUIDE (2), SHUTTLE	
458	3-669-466-00	SCREW (M 2.6)	
459	3-669-446-00	NUT, GUIDE, NO. 6	
460	3-679-910-00	FLANGE (S), GUIDE, NUMBER 6	
461	3-669-445-00	SPACER, GUIDE, NO. 6	
462	3-669-615-00	SPRING, COMPRESSION	
463	3-669-606-00	SCREW (2.6)	
464	8-825-508-10	HEAD, FE (FULL ERASE)	
465	♣:X-3669-313-0	BASE ASSY, SLANT	
466	♣:3-669-477-00	LINER, LINK, PIN	
467	3-669-465-00	WASHER (1.5), STOPPER	
468	3-669-630-00	ROLLER (C), RING	
469	3-669-597-00	ROLLER (B), RING	
470	3-669-607-31	+PSW (SMALL ROUND) (2.6)	
471	♣:X-3669-329-0	PLATE ASSY, ADJUSTMENT	
472	3-669-360-00	ROLLER, RING	
473	♣:3-669-476-04	PLATE, GUIDE	
474	♣:3-679-163-00	PLATE, LID OPEN	

5-11. CHASSIS ASSEMBLY (5)



No.	Part No.	Description	Remark
501	X-3679-150-0	RING (YA) ASSY, S LOADING	502-509
502	3-669-478-00	SCREW (1X3), TAPPING	
503	3-672-586-00	SCREW (1.4X3), TAPPING	
504	♣:3-669-472-02	RETAINER, SPRING, LEAF	
505	♣:X-3669-429-0	HOLDER BLOCK ASSY, #2 GUIDE	
506	3-669-479-11	SCREW (1.4X3.5), TAPPING	
507	3-672-583-00	SPRING	
508	♣:X-3669-430-0	HOLDER BLOCK ASSY, #3 GUIDE	
509	♣:3-669-616-00	RETAINER	
510	A-6750-108-B	SHUTTLE BLOCK ASSY, THREADING	

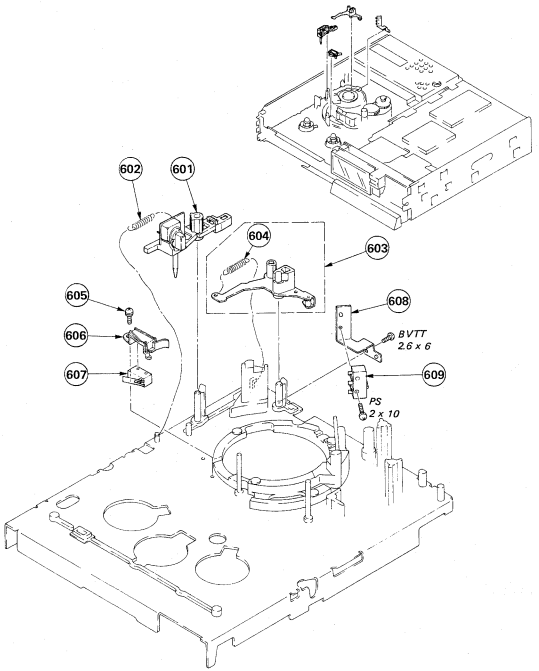
5-12. DRUM ASSEMBLY



No.	Part No.	Description	Remark
551	A-6050-189-A	DRUM ASSY (DSH-278-R)	552-555
552	A-6760-066-B	SPRING ASSY, TAPE RETAINER	
553	A-6760-117-A	DRUM ASSY, UPPER	
554	A-6762-083-A	DISK ASSY	
555	♣:X-3669-105-O	SPACER BLOCK ASSY	
556	X-2621-210-O	STATOR ASSY, DRUM	

No.	Part No.	Description	Remark
557	X-2621-202-O	ROTOR ASSY, DRUM	
558	♣:3-669-646-00	SPACER, DRUM	
559	♣:3-669-646-11	SPACER, DRUM	
560	3-669-600-11	WASHER, FLAT (3.5)	
561	3-429-123-00	SPRING	
562	3-669-302-00	SCREW, FITTING	

5-13. CHASSIS ASSEMBLY (6)

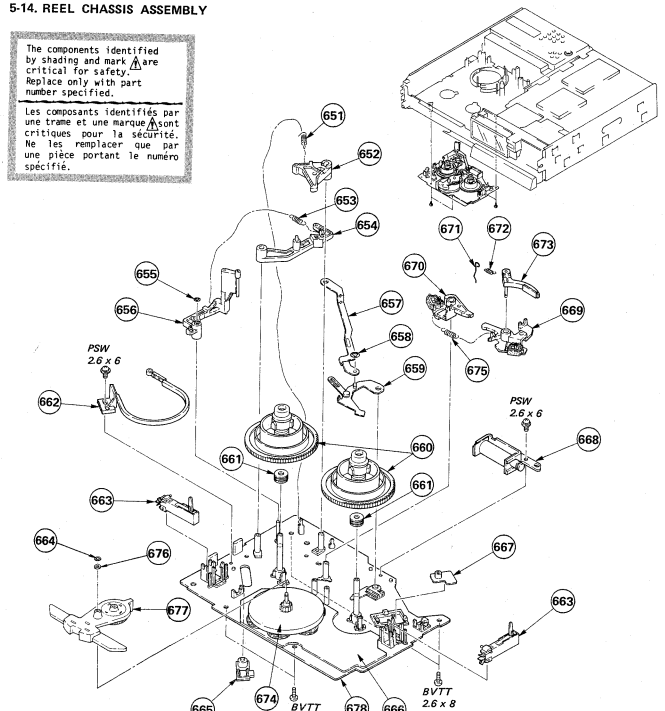


No.	Part No.	Description	Remark
601	1-464-279-00	SENSOR, S COIL L991	
602	3-679-164-00	SPRING, TENSION	
603	X-3679-149-0	ARM (B) ASSY, LOCK	
604	3-679-323-00	SPRING, TENSION	
605	3-669-607-31	+PSW (SMALL ROUND) (2.6)	
606	♣3-669-355-00	HOLDER, SWITCH, ULE	
607	1-553-718-00	SWITCH, MICRO (UNTHREADING END) S994	
608	♣3-672-542-00	BRACKET, SWITCH, LE	
609	1-553-539-00	SWITCH, MICRO (THREADING END) S993	

5-14. REEL CHASSIS ASSEMBLY

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

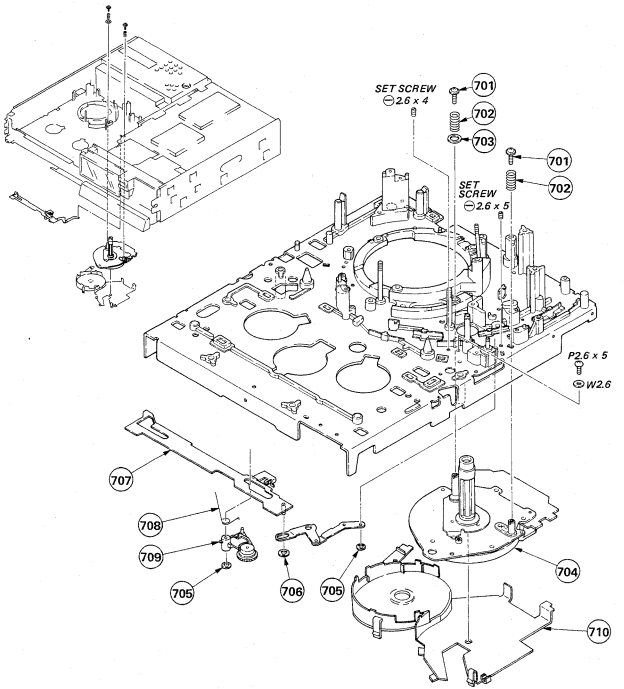
Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



No.	Part No.	Description	Remark
651	3-679-156-00	SPRING, TENSION	
652	♣:3-679-231-00	LEVER, BRAKE, SOFT	
653	3-679-151-00	SPRING, TENSION	
654	♣:3-679-230-00	LEVER, FUNCTION	
655	3-669-465-00	WASHER (1.5), STOPPER	
656	X-3679-122-0	LEVER ASSY, TENSION REGULATOR	
657	♣:3-679-168-00	JOINT, BRAKE, L	
658	3-669-596-00	WASHER (2.3), STOPPER	
659	X-3679-119-0	ARM ASSY, STOPPER, PENDULUM	
660	X-3681-104-0	TABLE ASSY, S REEL	
661	3-646-185-00	BEARING	
662	X-3679-120-0	BAND ASSY, TENSION REGULATOR	
663	1-554-374-00	SWITCH, LEVER	
664	3-669-595-00	WASHER (2), STOPPER	

No.	Part No.	Description	Remark
665	♣:1-610-401-00	RD-6 BOARD	
666	♣:A-4910-021-A	R STATOR BOARD, COMPLETE	
667	♣:1-610-739-00	RD-9 BOARD	
668	⚠:1-454-348-41	SOLENOID, BRAKE PLUNGER PM902	
669	X-3679-118-0	BRAKE ASSY, T	
670	X-3679-117-0	BRAKE ASSY, S	
671	♣:3-681-163-00	HOOK, SPRING, REWIND	
672	3-681-156-00	SPRING, TENSION	
673	♣:X-3681-105-0	ARM ASSY, REWIND BRAKE	
674	X-2622-201-0	ROTOR ASSY, R	
675	3-679-190-00	SPRING, TENSION	
676	3-679-318-00	WASHER, PENDULUM ARM	
677	A-6759-074-H	ARM BLOCK ASSY, PENDULUM	
678	♣:X-3679-130-0	CHASSIS ASSY, SUB	

5-15. CHASSIS ASSEMBLY (7)



No.	Part No.	Description	Remark
701	3-669-633-00	SCREW, + PW2	
702	3-679-359-00	SPRING, COMPRESSION	
703	3-669-697-00	SPACER, CAPSTAN	
704	8-838-049-01	MOTOR, DC (BHF-1909A) (CAPSTAN MOTOR)	
705	3-701-436-11	WASHER, 1.6	
706	3-669-595-00	WASHER (2), STOPPER	
707	X-3681-106-0	LEVER ASSY, SLIDE	
708	3-681-154-00	SPRING, TORSION	
709	X-3681-107-0	ARM ASSY, REVIEW BRAKE	
710	▲3-682-120-00	PROTECTOR	

HARDWARE LIST

SCREW

7-621-759-35	+PSW, 2.6X5
7-621-759-45	+PSW, 2.6X6
7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S
7-685-646-21	SCREW +BVTP 3X8 TYPE2 SLIT
7-685-871-01	SCREW +BVTT 3X6 (S)
7-685-861-01	SCREW +BVTT 2.6X5 (S)
7-685-862-01	SCREW +BVTT 2.6X6 (S)
7-685-863-01	SCREW +BVTT 2.6X8 (S)
7-685-863-09	SCREW +BVTT 2.6X8 (S)
7-685-104-11	SCREW +P 2X6 TYPE2 NON-SLIT
7-685-135-11	SCREW +P 2.6X10 TYPE2 NON-SLIT
7-621-259-32	SCREW +P 2.6X5
7-621-259-35	SCREW +P 2.6X5
7-685-133-11	SCREW +P 2.6X6 TYPE1
7-685-134-11	SCREW +P 2.6X8 TYPE2 NON-SLIT
7-628-253-45	SCREW +PS 2X10
7-628-253-95	SCREW +PS 2.6X4
7-685-791-01	SCREW +PTT 2.6X5 (S)
7-685-792-01	SCREW +PTT 2.6X6 (S)
7-685-792-09	SCREW +PTT 2.6X6 (S)
7-627-551-08	SCREW, PRECISION +P 1.4X1.6
7-627-551-28	SCREW, PRECISION +P 1.4X2.5

SET-SCREW

7-621-712-26	SET-SCREW, SLOT 2.6X3FLAT POINT
7-621-712-35	SET-SCREW, SLOT 2.6X4CONE POINT
7-621-712-46	SET-SCREW, SLOT 2.6X5FLAT POINT

SPRING PIN

7-626-302-31	SPRING PIN, 2.5X14

STOP PING

7-624-105-04	STOP RING 2.3, TYPE -E

TAPPING

7-685-105-11	TPG +P 2X8, TYPE 2, NON-SLIT

NUT

7-622-205-05	N 2, TYPE 2

WASHER

7-688-001-11	W 2, MIDDLE
7-688-002-11	W 2.6, MIDDLE
7-688-004-11	W 4, MIDDLE
7-688-004-01	W 4, SMALL

R STATOR | HA-5

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

When indicating parts by reference number, please include the board name.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

• ⇒: Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

• Items marked " ♦ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

• All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

CAPACITORS
• MF : μF, PF : μμF

RESISTORS
• All resistors are in ohms
• F : nonflammable

COILS
• MMH : mH, UH : μH

Ref.No.	Part No.	Description			Remark
	♦:A-4910-021-A	R STATOR BOARD, COMPLETE (REEL MOTOR BOARD)			
		**********			
	♦:1-560-460-00	PIN, CONNECTOR 4P			
		CAPACITOR			
C1	1-123-821-00	ELECT 47MF	20%	16V	
C2	1-123-821-00	ELECT 47MF	20%	16V	
C3	1-123-821-00	ELECT 47MF	20%	16V	
C4	1-123-821-00	ELECT 47MF	20%	16V	
		DIODE			
D1	⇒8-719-815-55	DIODE 1S1555			
		IC			
IC1	8-759-108-77	IC CX877			
		TRANSISTOR			
Q1	8-729-100-01	TRANSISTOR 2SD992			
Q2	8-729-100-01	TRANSISTOR 2SD992			
Q3	8-729-100-01	TRANSISTOR 2SD992			
Q4	8-729-100-01	TRANSISTOR 2SD992			
Q5	8-729-100-01	TRANSISTOR 2SD992			
Q6	8-729-100-01	TRANSISTOR 2SD992			
		RESISTOR			
R1	1-247-823-00	CARBON 470	5%	1/6W	
R2	1-247-823-00	CARBON 470	5%	1/6W	
R3	1-247-823-00	CARBON 470	5%	1/6W	
R4	1-247-829-00	CARBON 820	5%	1/6W	
R5	1-247-871-00	CARBON 47K	5%	1/6W	
R6	1-247-871-00	CARBON 47K	5%	1/6W	
R7	1-247-871-00	CARBON 47K	5%	1/6W	
R8	1-247-871-00	CARBON 47K	5%	1/6W	
		DIODE			
S1	8-719-810-31	DIODE THS103-1			
S2	8-719-810-31	DIODE THS103-1			

Ref.No.	Part No.	Description			Remark
	♦:A-6711-448-A	HA-5 BOARD, COMPLETE			
		**********			
		CAPACITOR			
C503	1-123-645-00	ELECT 33MF	20%	10V	
C505	1-161-013-00	CERAMIC 0.01MF	10%	25V	
C506	1-161-772-11	CERAMIC 0.1MF	10%	25V	
C507	1-161-772-11	CERAMIC 0.1MF	10%	25V	
C508	1-161-772-11	CERAMIC 0.1MF	10%	25V	
C509	1-123-645-00	ELECT 33MF	20%	10V	
C510	1-161-019-00	CERAMIC 0.033MF	10%	25V	
C511	1-123-622-00	ELECT 22MF	20%	16V	
C514	1-161-013-00	CERAMIC 0.01MF	10%	25V	
C515	1-123-645-00	ELECT 33MF	20%	10V	
C516	1-161-013-00	CERAMIC 0.01MF	10%	25V	
C517	1-161-019-00	CERAMIC 0.033MF	10%	25V	
C518	1-161-019-00	CERAMIC 0.033MF	10%	25V	
C519	1-161-019-00	CERAMIC 0.033MF	10%	25V	
C520	1-123-612-00	ELECT 2.2MF	20%	50V	
C521	1-123-612-00	ELECT 2.2MF	20%	50V	
C522	1-161-013-00	CERAMIC 0.01MF	10%	25V	
C523	1-102-971-00	CERAMIC 82PF	5%	50V	
C524	1-123-612-00	ELECT 2.2MF	20%	50V	
C525	1-161-013-00	CERAMIC 0.01MF	10%	25V	
C526	1-102-971-00	CERAMIC 82PF	5%	50V	
C527	1-123-612-00	ELECT 2.2MF	20%	50V	
C528	1-161-013-00	CERAMIC 0.01MF	10%	25V	
C529	1-102-971-00	CERAMIC 82PF	5%	50V	
C530	1-161-013-00	CERAMIC 0.01MF	10%	25V	
C531	1-161-013-00	CERAMIC 0.01MF	10%	25V	
C532	1-123-645-00	ELECT 33MF	20%	10V	
C533	1-161-039-00	CERAMIC 0.001MF	10%	25V	
C534	1-161-039-00	CERAMIC 0.001MF	10%	25V	
C535	1-161-013-00	CERAMIC 0.01MF	10%	25V	
C536	1-123-645-00	ELECT 33MF	20%	10V	
C537	1-161-013-00	CERAMIC 0.01MF	10%	25V	
C538	1-123-645-00	ELECT 33MF	20%	10V	
C539	1-161-039-00	CERAMIC 0.001MF	10%	25V	
C540	1-161-039-00	CERAMIC 0.001MF	10%	25V	
C541	1-161-039-00	CERAMIC 0.001MF	10%	25V	
C542	1-161-039-00	CERAMIC 0.001MF	10%	25V	
C543	1-161-013-00	CERAMIC 0.01MF	10%	25V	
C544	1-123-645-00	ELECT 33MF	20%	10V	
C545	1-161-013-00	CERAMIC 0.01MF	10%	25V	
C546	1-123-645-00	ELECT 33MF	20%	10V	
C547	1-161-039-00	CERAMIC 0.001MF	10%	25V	
C548	1-161-039-00	CERAMIC 0.001MF	10%	25V	
C549	1-130-499-51	MYLAR 0.22MF	5%	50V	
C551	1-123-645-00	ELECT 33MF	20%	10V	
C552	1-123-645-00	ELECT 33MF	20%	10V	
C553	1-161-013-00	CERAMIC 0.01MF	10%	25V	
C554	1-161-019-00	CERAMIC 0.033MF	10%	25V	
C555	1-161-013-00	CERAMIC 0.01MF	10%	25V	

Ref.No.	Part No.	Description			Remark
C556	1-161-013-00	CERAMIC	0.01MF	10% 25V	
C557	1-123-645-00	ELECT	33MF	20% 10V	
C558	1-161-013-00	CERAMIC	0.01MF	10% 25V	
C559	1-161-013-00	CERAMIC	0.01MF	10% 25V	
C560	1-123-645-00	ELECT	33MF	20% 10V	
C561	1-161-013-00	CERAMIC	0.01MF	10% 25V	
C562	1-161-039-00	CERAMIC	0.001MF	10% 25V	
		CONNECTOR			
CN151	1-564-020-00	PIN, CONNECTOR 10P			
CN152	1-560-899-00	PIN, CONNECTOR 11P			
CN153	1-560-461-00	PIN, CONNECTOR 5P			
CN154	1-560-892-00	PIN, CONNECTOR 4P			
CN155	1-560-897-00	PIN, CONNECTOR 9P			
		IC			
IC501	8-758-620-00	IC CX862			
IC502=>	8-759-908-63	IC CX863A			
IC503	8-759-157-70	IC UPC577H			
IC504	8-759-157-70	IC UPC577H			
IC505	8-759-157-70	IC UPC577H			
IC506	8-759-157-70	IC UPC577H			
		COIL			
L501	1-408-408-00	MICRO INDUCTOR 8.2UH			
L502	1-408-408-00	MICRO INDUCTOR 8.2UH			
L503	1-408-877-00	MICRO INDUCTOR 0.22UH			
L504	1-408-877-00	MICRO INDUCTOR 0.22UH			
L505	1-408-876-21	MICRO INDUCTOR 0.18UH			
L506	1-408-425-00	MICRO INDUCTOR 220UH			
L507	1-408-425-00	MICRO INDUCTOR 220UH			
L508	1-408-714-00	INDUCTOR (SHIELD TYPE)			
L509	1-408-714-00	INDUCTOR (SHIELD TYPE)			
L510	1-408-714-00	INDUCTOR (SHIELD TYPE)			
		TRANSISTOR			
Q501	8-729-967-32	TRANSISTOR 2SC2673			
Q502 =>	8-729-204-83	TRANSISTOR 2SA1048-GR			
Q503	8-729-178-54	TRANSISTOR 2SC2785			
Q504	8-729-178-54	TRANSISTOR 2SC2785			
Q505	8-729-178-54	TRANSISTOR 2SC2785			
Q506	8-729-178-54	TRANSISTOR 2SC2785			
Q507	8-729-178-54	TRANSISTOR 2SC2785			
Q508	8-729-178-54	TRANSISTOR 2SC2785			
Q509	8-729-178-54	TRANSISTOR 2SC2785			
Q510	8-729-178-54	TRANSISTOR 2SC2785			
Q511	8-729-178-54	TRANSISTOR 2SC2785			
		RESISTOR			
R501	1-247-831-00	CARBON	1K	5% 1/6W	
R502	1-247-822-00	CARBON	430	5% 1/6W	
R503	1-247-827-00	CARBON	680	5% 1/6W	
R504	1-247-860-00	CARBON	16K	5% 1/6W	

Ref.No.	Part No.	Description			Remark
R505	1-247-836-00	CARBON	1.6K	5% 1/6W	
R506	1-247-859-00	CARBON	15K	5% 1/6W	
R507	1-247-835-00	CARBON	1.5K	5% 1/6W	
R508	1-247-827-00	CARBON	680	5% 1/6W	
R509	1-247-821-00	CARBON	390	5% 1/6W	
R510	1-246-429-00	CARBON	15	5% 1/4W	
R511	1-247-839-00	CARBON	2.2K	5% 1/6W	
R512	1-247-853-00	CARBON	8.2K	5% 1/6W	
R513	1-247-855-00	CARBON	10K	5% 1/6W	
R514	1-247-867-00	CARBON	33K	5% 1/6W	
R515	1-247-851-00	CARBON	6.8K	5% 1/6W	
R516	1-247-815-00	CARBON	220	5% 1/6W	
R517	1-247-831-00	CARBON	1K	5% 1/6W	
R518	1-247-831-00	CARBON	1K	5% 1/6W	
R519	1-247-831-00	CARBON	1K	5% 1/6W	
R520	1-247-830-00	CARBON	910	5% 1/6W	
R521	1-247-867-00	CARBON	33K	5% 1/6W	
R522	1-247-869-00	CARBON	39K	5% 1/6W	
R523	1-247-873-00	CARBON	56K	5% 1/6W	
R524	1-247-852-00	CARBON	7.5K	5% 1/6W	
R525	1-247-853-00	CARBON	8.2K	5% 1/6W	
R526	1-247-869-00	CARBON	39K	5% 1/6W	
R527	1-247-873-00	CARBON	56K	5% 1/6W	
R528	1-247-852-00	CARBON	7.5K	5% 1/6W	
R529	1-247-819-00	CARBON	330	5% 1/6W	
R530	1-247-811-00	CARBON	150	5% 1/6W	
R531	1-247-831-00	CARBON	1K	5% 1/6W	
R532	1-247-827-00	CARBON	680	5% 1/6W	
R533	1-247-867-00	CARBON	33K	5% 1/6W	
R534	1-247-870-00	CARBON	43K	5% 1/6W	
R535	1-247-846-00	CARBON	4.3K	5% 1/6W	
R536	1-247-831-00	CARBON	1K	5% 1/6W	
R537	1-247-827-00	CARBON	680	5% 1/6W	
R538	1-247-867-00	CARBON	33K	5% 1/6W	
R539	1-247-870-00	CARBON	43K	5% 1/6W	
R540	1-247-846-00	CARBON	4.3K	5% 1/6W	
R541	1-247-819-00	CARBON	330	5% 1/6W	
R542	1-247-811-00	CARBON	150	5% 1/6W	
R543	1-247-816-00	CARBON	240	5% 1/6W	
R544	1-247-839-00	CARBON	2.2K	5% 1/6W	
R545	1-247-831-00	CARBON	1K	5% 1/6W	
R546	1-247-827-00	CARBON	680	5% 1/6W	
R547	1-247-867-00	CARBON	33K	5% 1/6W	
R548	1-247-870-00	CARBON	43K	5% 1/6W	
R549	1-247-846-00	CARBON	4.3K	5% 1/6W	
R550	1-247-831-00	CARBON	1K	5% 1/6W	
R551	1-247-827-00	CARBON	680	5% 1/6W	
R552	1-247-867-00	CARBON	33K	5% 1/6W	
R553	1-247-870-00	CARBON	43K	5% 1/6W	
R554	1-247-846-00	CARBON	4.3K	5% 1/6W	
R555	1-247-847-00	CARBON	4.7K	5% 1/6W	
R556	1-247-872-00	CARBON	51K	5% 1/6W	
R557	1-247-867-00	CARBON	33K	5% 1/6W	

Ref.No.	Part No.	Description				Remark
R558	1-247-862-00	CARBON	20K	5%	1/6W	
R559	1-247-862-00	CARBON	20K	5%	1/6W	
R560	1-247-846-00	CARBON	4.3K	5%	1/6W	
R561	1-247-846-00	CARBON	4.3K	5%	1/6W	
R562	1-247-819-00	CARBON	330	5%	1/6W	
R563	1-247-811-00	CARBON	150	5%	1/6W	
R564	1-247-819-00	CARBON	330	5%	1/6W	
R565	1-247-811-00	CARBON	150	5%	1/6W	
R567	1-247-883-00	CARBON	150K	5%	1/6W	
		VARIABLE RESISTOR				
RV501	1-228-920-00	RES, ADJ, CARBON 2.2K				
RV502	1-228-920-00	RES, ADJ, CARBON 2.2K				
RV503	1-228-920-00	RES, ADJ, CARBON 2.2K				
RV504	1-228-920-00	RES, ADJ, CARBON 2.2K				
RV505	1-228-920-00	RES, ADJ, CARBON 2.2K				
		TRANSFORMER				
T501	1-235-260-00	FILTER, BAND PASS				
▲T502	1-235-262-00	FILTER, BAND PASS				
T503	1-235-261-00	FILTER, BAND PASS				
T504	1-235-263-00	FILTER, BAND PASS				
**********						
▲:A-6711-449-A		VI-2 BOARD, COMPLETE				
		**********				
▲:3-682-057-01		SPACER (SMALL)				
		CAPACITOR				
C001	1-101-888-00	CERAMIC	68PF	5%	50V	
C002	1-101-884-00	CERAMIC	56PF	5%	50V	
C003	1-102-979-00	CERAMIC	240PF	5%	50V	
C004	1-161-019-00	CERAMIC	0.033MF	10%	25V	
C005	1-161-019-00	CERAMIC	0.033MF	10%	25V	
C006	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C007	1-161-019-00	CERAMIC	0.033MF	10%	25V	
C008	1-102-965-00	CERAMIC	39PF	5%	50V	
C009	1-101-884-00	CERAMIC	56PF	5%	50V	
C010	1-161-019-00	CERAMIC	0.033MF	10%	25V	
C011	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C012	1-102-960-00	CERAMIC	24PF	5%	50V	
C013	1-102-821-00	CERAMIC	360PF	5%	50V	
C014	1-102-946-00	CERAMIC	9PF	0.5PF	50V	
C015	1-161-020-00	CERAMIC	0.039MF	10%	25V	
C017	1-102-942-00	CERAMIC	5PF	0.5PF	50V	
C018	1-101-880-00	CERAMIC	47PF	5%	50V	
C019	1-101-888-00	CERAMIC	68PF	5%	50V	
C020	1-101-886-00	CERAMIC	62PF	5%	50V	
C021	1-102-960-00	CERAMIC	24PF	5%	50V	
C022	1-123-356-00	ELECT	10MF	20%	16V	
C023	1-101-890-00	CERAMIC	75PF	5%	50V	
C024	1-102-939-61	CERAMIC	2PF	0.5PF	50V	
C025	1-123-318-00	ELECT	33MF	20%	16V	

Ref.No.	Part No.	Description				Remark
C027	1-123-318-00	ELECT	33MF	20%	16V	
C028	1-102-964-00	CERAMIC	36PF	5%	50V	
C029	1-102-816-00	CERAMIC	120PF	5%	50V	
C030	1-102-964-00	CERAMIC	36PF	5%	50V	
C031	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C032	1-123-356-00	ELECT	10MF	20%	16V	
C033	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C034	1-102-961-00	CERAMIC	27PF	5%	50V	
C035	1-123-356-00	ELECT	10MF	20%	16V	
C036	1-102-961-00	CERAMIC	27PF	5%	50V	
C037	1-123-340-00	ELECT	4.7MF	20%	35V	
C038	1-123-356-00	ELECT	10MF	20%	16V	
C039	1-101-059-00	CERAMIC	510PF	5%	50V	
C040	1-123-356-00	ELECT	10MF	20%	16V	
C041	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C042	1-123-380-00	ELECT	1MF	20%	50V	
C043	1-123-380-00	ELECT	1MF	20%	50V	
C044	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C045	1-102-947-00	CERAMIC	10PF	5%	50V	
C046	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C047	1-123-330-00	ELECT	22MF	20%	16V	
C048	1-123-330-00	ELECT	22MF	20%	16V	
C050	1-123-330-00	ELECT	22MF	20%	16V	
C051	1-123-330-00	ELECT	22MF	20%	16V	
C052	1-123-340-00	ELECT	4.7MF	20%	35V	
C053	1-102-962-00	CERAMIC	30PF	5%	50V	
C054	1-101-884-00	CERAMIC	56PF	5%	50V	
C055	1-102-940-00	CERAMIC	3PF	0.5PF	50V	
C056	1-123-330-00	ELECT	22MF	20%	16V	
C058	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C059	1-123-356-00	ELECT	10MF	20%	16V	
C060	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C061	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C062	1-123-356-00	ELECT	10MF	20%	16V	
C063	1-102-516-00	CERAMIC	27PF	5%	50V	
C064	1-123-379-00	ELECT	0.47MF	20%	50V	
C067	1-123-607-00	ELECT	0.1MF	20%	50V	
C068	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C069	1-123-379-00	ELECT	0.47MF	20%	50V	
C070	1-123-330-00	ELECT	22MF	20%	16V	
C071	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C072	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C073	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C074	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C075	1-102-963-00	CERAMIC	33PF	5%	50V	
C076	1-123-381-00	ELECT	2.2MF	20%	50V	
C077	1-161-005-00	CERAMIC	0.0022MF	10%	25V	
C078	1-102-947-00	CERAMIC	10PF	5%	50V	
C079	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C080	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C081	1-102-973-00	CERAMIC	100PF	5%	50V	
C082	1-102-973-00	CERAMIC	100PF	5%	50V	

Ref.No.	Part No.	Description				Remark
C083	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C084	1-130-495-00	MYLAR	0.1MF	5%	50V	
C086	1-123-306-00	ELECT	47MF	20%	10V	
C087	1-123-318-00	ELECT	33MF	20%	16V	
C088	1-101-884-00	CERAMIC	56PF	5%	50V	
C089	1-102-963-00	CERAMIC	33PF	5%	50V	
C090	1-123-318-00	ELECT	33MF	20%	16V	
C091	1-123-356-00	ELECT	10MF	20%	16V	
C092	1-123-380-00	ELECT	1MF	20%	50V	
C093	1-123-354-00	ELECT	3.3MF	20%	50V	
C094	1-102-977-00	CERAMIC	200PF	5%	50V	
C095	1-123-356-00	ELECT	10MF	20%	16V	
C096	1-102-820-00	CERAMIC	330PF	5%	50V	
C097	1-130-489-00	MYLAR	0.033MF	5%	50V	
C098	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C099	1-101-059-00	CERAMIC	510PF	5%	50V	
C100	1-130-471-00	MYLAR	0.001MF	5%	50V	
C101	1-102-820-00	CERAMIC	330PF	5%	50V	
C102	1-130-471-00	MYLAR	0.001MF	5%	50V	
C103	1-101-361-00	CERAMIC	150PF	5%	50V	
C104	1-123-340-00	ELECT	4.7MF	20%	35V	
C105	1-123-379-00	ELECT	0.47MF	20%	50V	
C106	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C108	1-123-356-00	ELECT	10MF	20%	16V	
C110	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C111	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C112	1-123-039-00	ELECT	22MF	20%	16V	
C113	1-131-413-00	ELECT(SOLID)	1MF	10%	16V	
C114	1-102-971-00	CERAMIC	82PF	5%	50V	
C115	1-123-380-00	ELECT	1MF	20%	50V	
C116	1-101-880-00	CERAMIC	47PF	5%	50V	
C117	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C118	1-102-116-00	CERAMIC	680PF	10%	50V	
C119	1-123-380-00	ELECT	1MF	20%	50V	
C120	1-102-116-00	CERAMIC	680PF	10%	50V	
C121	1-101-059-00	CERAMIC	510PF	5%	50V	
C122	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C123	1-101-882-00	CERAMIC	51PF	5%	50V	
C124	1-123-354-00	ELECT	3.3MF	20%	50V	
C125	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C126	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C127	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C128	1-123-356-00	ELECT	10MF	20%	16V	
C129	1-123-356-00	ELECT	10MF	20%	16V	
C130	1-101-888-00	CERAMIC	68PF	5%	50V	
C131	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C132	1-102-978-00	CERAMIC	220PF	5%	50V	
C133	1-127-437-51	ELECT(SOLID)	0.47MF	10%	16V	
C134	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C135	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C136	1-123-356-00	ELECT	10MF	20%	16V	
C137	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C138	1-102-961-00	CERAMIC	27PF	5%	50V	
C139	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C140	1-123-330-00	ELECT	22MF	20%	16V	
C141	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C142	1-123-330-00	ELECT	22MF	20%	16V	
C143	1-161-025-00	CERAMIC	0.1MF	10%	25V	
C144	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C145	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C146	1-161-039-00	CERAMIC	0.001MF	10%	25V	
C147	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C148	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C149	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C150	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C151	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C152	1-123-381-00	ELECT	2.2MF	20%	50V	
C153	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C154	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C155	1-161-039-00	CERAMIC	0.001MF	10%	25V	
C157	1-123-306-00	ELECT	47MF	20%	10V	
C158	1-161-018-00	CERAMIC	0.027MF	10%	25V	
C159	1-123-354-00	ELECT	3.3MF	20%	50V	
C160	1-123-354-00	ELECT	3.3MF	20%	50V	
C161	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C162	1-102-962-00	CERAMIC	30PF	5%	50V	
C163	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C164	1-123-354-00	ELECT	3.3MF	20%	50V	
C165	1-123-607-00	ELECT	0.1MF	20%	50V	
C166	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C168	1-101-888-00	CERAMIC	68PF	5%	50V	
C169	1-123-311-00	ELECT	1000MF	20%	10V	
C171	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C172	1-123-356-00	ELECT	10MF	20%	16V	
C173	1-123-356-00	ELECT	10MF	20%	16V	
C174	1-102-816-00	CERAMIC	120PF	5%	50V	
C175	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C176	1-101-884-00	CERAMIC	56PF	5%	50V	
C177	1-123-306-00	ELECT	47MF	20%	10V	
C178	1-123-306-00	ELECT	47MF	20%	10V	
C179	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C180	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C181	1-102-822-00	CERAMIC	390PF	5%	50V	
C184	1-123-307-00	ELECT	100MF	20%	10V	
C185	1-130-489-00	MYLAR	0.033MF	5%	50V	
C186	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C187	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C188	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C189	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C190	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C192	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C193	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C194	1-161-025-00	CERAMIC	0.1MF	10%	25V	
C195	1-123-380-00	ELECT	1MF	20%	50V	
C196	1-102-950-00	CERAMIC	13PF	5%	50V	
C197	1-123-307-00	ELECT	100MF	20%	10V	

Ref.No.	Part No.	Description				Remark
C198	1-123-380-00	ELECT	1MF	20%	50V	
C199	1-101-888-00	CERAMIC	68PF	5%	50V	
C201	1-123-356-00	ELECT	10MF	20%	16V	
C202	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C203	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C204	1-123-356-00	ELECT	10MF	20%	16V	
C205	1-123-356-00	ELECT	10MF	20%	16V	
C206	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C210	1-102-950-00	CERAMIC	18PF	5%	50V	
C211	1-102-816-00	CERAMIC	120PF	5%	50V	
C212	1-102-966-00	CERAMIC	43PF	5%	50V	
C213	1-161-024-00	CERAMIC	0.082MF	10%	25V	
C214	1-102-951-00	CERAMIC	15PF	5%	50V	
C215	1-102-978-00	CERAMIC	220PF	5%	50V	
C216	1-102-820-00	CERAMIC	330PF	5%	50V	
C217	1-161-003-00	CERAMIC	0.0015MF	10%	25V	
C218	1-101-361-00	CERAMIC	150PF	5%	50V	
C219	1-102-981-00	CERAMIC	300PF	5%	50V	
C220	1-102-820-00	CERAMIC	330PF	5%	50V	
C221	1-102-963-00	CERAMIC	33PF	5%	50V	
C222	1-101-880-00	CERAMIC	47PF	5%	50V	
C223	1-102-976-00	CERAMIC	180PF	5%	50V	
C224	1-123-380-00	ELECT	1MF	20%	50V	
C225	1-102-979-00	CERAMIC	240PF	5%	50V	
C226	1-123-356-00	ELECT	10MF	20%	16V	
C228	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C229	1-123-356-00	ELECT	10MF	20%	16V	
C230	1-102-820-00	CERAMIC	330PF	5%	50V	
C231	1-102-823-00	CERAMIC	43PF	5%	50V	
C232	1-101-059-00	CERAMIC	51DPF	5%	50V	
C233	1-102-823-00	CERAMIC	43PF	5%	50V	
C234	1-102-976-00	CERAMIC	180PF	5%	50V	
C235	1-102-821-00	CERAMIC	360PF	5%	50V	
C236	1-102-822-00	CERAMIC	390PF	5%	50V	
C237	1-123-354-00	ELECT	3.3MF	20%	50V	
C238	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C239	1-123-356-00	ELECT	10MF	20%	16V	
C240	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C241	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C242	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C243	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C271	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C272	1-101-886-00	CERAMIC	47PF	5%	50V	
C400	1-123-354-00	ELECT	3.3MF	20%	50V	
C401	1-123-380-00	ELECT	1MF	20%	50V	
C402	1-123-356-00	ELECT	10MF	20%	16V	
C403	1-161-021-00	CERAMIC	0.047MF	10%	25V	

FILTER

CF001	1-527-831-00	FILTER, CERAMIC
CF002	1-527-823-00	FILTER, CERAMIC
CF003	1-231-302-00	CERAMIC FILTER (4.27MHZ)
CF004	1-527-823-00	FILTER, CERAMIC

Ref.No.	Part No.	Description	Remark
		CONNECTOR	
CN101★	1-560-899-41	PIN, CONNECTOR 11P	
CN102★	1-560-890-00	PIN, CONNECTOR 2P	
CN103★	1-560-894-00	PIN, CONNECTOR 6P	
CN104★	1-560-900-00	PIN, CONNECTOR 12P	
CN105★	1-560-892-00	PIN, CONNECTOR 4P	
CN106★	1-560-894-00	PIN, CONNECTOR 6P	
CN107★	1-560-892-00	PIN, CONNECTOR 4P	
CN108★	1-560-892-00	PIN, CONNECTOR 4P	
		DIODE	
D001	8-719-911-19	DIODE 1SS119	
D002	8-719-911-19	DIODE 1SS119	
D003	8-719-911-19	DIODE 1SS119	
D004	8-719-911-19	DIODE 1SS119	
D005	8-719-911-19	DIODE 1SS119	
D006	8-719-911-19	DIODE 1SS119	
D007	8-719-911-19	DIODE 1SS119	
D008	8-719-911-19	DIODE 1SS119	
D009	8-719-911-19	DIODE 1SS119	
D010	8-719-911-19	DIODE 1SS119	
D011	8-719-911-19	DIODE 1SS119	
D012	8-719-911-19	DIODE 1SS119	
D013	8-719-911-19	DIODE 1SS119	
D037	8-719-911-19	DIODE 1SS119	
D038	8-719-911-19	DIODE 1SS119	
D039	8-719-911-19	DIODE 1SS119	
D040	8-719-911-19	DIODE 1SS119	
D041	8-719-911-19	DIODE 1SS119	
D042	8-719-911-19	DIODE 1SS119	
D043	8-719-911-19	DIODE 1SS119	
D044	8-719-911-19	DIODE 1SS119	
D045	8-719-911-19	DIODE 1SS119	
D046	8-719-911-19	DIODE 1SS119	
D047	8-719-911-19	DIODE 1SS119	
D048	8-719-911-19	DIODE 1SS119	
D049	8-719-911-19	DIODE 1SS119	
D050	8-719-911-19	DIODE 1SS119	
D051	8-719-911-19	DIODE 1SS119	
D052	8-719-911-19	DIODE 1SS119	
D053	8-719-911-19	DIODE 1SS119	
D054	8-719-911-19	DIODE 1SS119	
D055	8-719-911-19	DIODE 1SS119	
D056	8-719-911-19	DIODE 1SS119	
D057	8-719-911-19	DIODE 1SS119	
D058	8-719-911-19	DIODE 1SS119	
D059	8-719-911-19	DIODE 1SS119	
D060	8-719-911-19	DIODE 1SS119	
		DELAY LINE	
DL001	1-415-285-00	DELAY LINE (1H)	
DL002	1-415-065-00	DELAY LINE	

Ref.No.	Part No.	Description	Remark
DL003	1-415-263-21	DELAY LINE (1/2H)	
DL004	1-415-325-00	DELAY LINE, 1/4H SOLID	
		IC	
IC001	8-759-606-64	IC CX854	
IC004	8-758-661-00	IC CX856A	
IC005	8-752-000-80	IC CX20008	
IC006	8-759-901-03	IC CX7944	
IC007	8-759-600-08	IC CX870A	
IC008	8-759-606-82	IC CX882	
IC009	8-759-208-67	IC CX867	
IC010	8-758-691-00	IC CX869A	
IC011	8-759-908-68	IC CX868	
IC012	8-759-608-65	IC CX865	
IC013	8-759-208-92	IC CX892	
IC014	8-758-220-00	IC CX822	
IC015	8-759-208-94	IC CX894	
		COIL	
L001	1-408-616-00	MICRO INDUCTOR 120UH	
L002	1-408-609-00	MICRO INDUCTOR 33UH	
L003	1-408-619-00	MICRO INDUCTOR 220UH	
L004	1-408-618-00	MICRO INDUCTOR 180UH	
L005	1-408-619-00	MICRO INDUCTOR 220UH	
L006	1-408-613-00	MICRO INDUCTOR 68UH	
L007	1-408-617-00	MICRO INDUCTOR 150UH	
L008	1-408-607-00	MICRO INDUCTOR 22UH	
L009	1-408-608-00	MICRO INDUCTOR 27UH	
L010	1-408-612-00	MICRO INDUCTOR 56UH	
L011	1-408-613-00	MICRO INDUCTOR 68UH	
L012	1-408-613-00	MICRO INDUCTOR 68UH	
L013	1-408-592-00	MICRO INDUCTOR 1.2UH	
L014	1-408-592-00	MICRO INDUCTOR 1.2UH	
L015	1-408-617-00	MICRO INDUCTOR 150UH	
L017	1-408-615-00	MICRO INDUCTOR 100UH	
L018	1-408-621-00	MICRO INDUCTOR 330UH	
L020	1-408-612-00	MICRO INDUCTOR 56UH	
L021	1-408-621-00	MICRO INDUCTOR 330UH	
L022	1-408-607-00	MICRO INDUCTOR 22UH	
L023	1-407-502-00	MICRO INDUCTOR 6.8MMH	
L024	1-408-617-00	MICRO INDUCTOR 150UH	
L025	1-408-596-00	MICRO INDUCTOR 2.7UH	
L026	1-408-593-00	MICRO INDUCTOR 1.5UH	
L027	1-408-608-00	MICRO INDUCTOR 27UH	
L028	1-408-613-00	MICRO INDUCTOR 68UH	
L030	1-408-617-00	MICRO INDUCTOR 150UH	
L031	1-408-618-00	MICRO INDUCTOR 180UH	
L032	1-408-614-00	MICRO INDUCTOR 82UH	
L033	1-408-607-00	MICRO INDUCTOR 22UH	
L034	1-408-616-00	MICRO INDUCTOR 120UH	
L035	1-408-610-00	MICRO INDUCTOR 39UH	
L036	1-408-603-00	MICRO INDUCTOR 10UH	
L037	1-408-609-00	MICRO INDUCTOR 33UH	
L038	1-408-615-00	MICRO INDUCTOR 100UH	
L039	1-408-615-00	MICRO INDUCTOR 100UH	
		VARIABLE COIL	
LV001	1-408-512-00	COIL (VARIABLE)	
LV002	1-408-522-00	COIL, VARIABLE	
LV003	1-408-522-00	COIL, VARIABLE	
		TRANSISTOR	
Q001	=>8-729-245-83	TRANSISTOR 2SC2458	
Q002	=>8-729-245-83	TRANSISTOR 2SC2458	
Q003	8-729-900-33	TRANSISTOR DTC144EF	
Q004	=>8-729-245-83	TRANSISTOR 2SC2458	
Q005	=>8-729-245-83	TRANSISTOR 2SC2458	
Q006	=>8-729-245-83	TRANSISTOR 2SC2458	
Q007	=>8-729-245-83	TRANSISTOR 2SC2458	
Q008	8-729-900-33	TRANSISTOR DTC144EF	
Q009	8-729-178-55	TRANSISTOR 2SC2785-E	
Q010	=>8-729-245-83	TRANSISTOR 2SC2458	
Q011	=>8-729-245-83	TRANSISTOR 2SC2458	
Q012	=>8-729-245-83	TRANSISTOR 2SC2458	
Q013	=>8-729-245-83	TRANSISTOR 2SC2458	
Q014	=>8-729-245-83	TRANSISTOR 2SC2458	
Q015	=>8-729-245-83	TRANSISTOR 2SC2458	
Q016	8-729-113-33	TRANSISTOR 2SB733-4	
Q017	=>8-729-245-83	TRANSISTOR 2SC2458	
Q018	=>8-729-245-83	TRANSISTOR 2SC2458	
Q019	=>8-729-245-83	TRANSISTOR 2SC2458	
Q020	8-729-117-54	TRANSISTOR 2SA1175	
Q021	=>8-729-245-83	TRANSISTOR 2SC2458	
Q022	=>8-729-245-83	TRANSISTOR 2SC2458	
Q023	=>8-729-245-83	TRANSISTOR 2SC2458	
Q024	=>8-729-245-83	TRANSISTOR 2SC2458	
Q025	8-729-117-54	TRANSISTOR 2SA1175	
Q026	=>8-729-245-83	TRANSISTOR 2SC2458	
Q027	=>8-729-245-83	TRANSISTOR 2SC2458	
Q028	8-729-900-33	TRANSISTOR DTC144EF	
Q029	=>8-729-245-83	TRANSISTOR 2SC2458	
Q030	8-729-117-54	TRANSISTOR 2SA1175	
Q032	8-729-117-54	TRANSISTOR 2SA1175	
Q033	8-729-117-54	TRANSISTOR 2SA1175	
Q034	=>8-729-245-83	TRANSISTOR 2SC2458	
Q035	=>8-729-245-83	TRANSISTOR 2SC2458	
Q036	=>8-729-245-83	TRANSISTOR 2SC2458	
Q037	=>8-729-245-83	TRANSISTOR 2SC2458	
Q038	=>8-729-245-83	TRANSISTOR 2SC2458	
Q039	=>8-729-245-83	TRANSISTOR 2SC2458	
Q040	=>8-729-245-83	TRANSISTOR 2SC2458	
Q041	=>8-729-245-83	TRANSISTOR 2SC2458	
Q042	=>8-729-245-83	TRANSISTOR 2SC2458	
Q043	=>8-729-245-83	TRANSISTOR 2SC2458	
Q044	=>8-729-245-83	TRANSISTOR 2SC2458	
Q045	=>8-729-245-83	TRANSISTOR 2SC2458	

Ref.No.	Part No.	Description	Remark
Q046	=>8-729-245-83	TRANSISTOR 2SC2458	
Q047	=>8-729-245-83	TRANSISTOR 2SC2458	
Q048	=>8-729-245-83	TRANSISTOR 2SC2458	
Q049	8-729-117-54	TRANSISTOR 2SA1175	
Q050	8-729-117-54	TRANSISTOR 2SA1175	
Q051	8-729-178-55	TRANSISTOR 2SC2785-E	
Q052	8-729-117-54	TRANSISTOR 2SA1175	
Q053	8-729-117-54	TRANSISTOR 2SA1175	
Q054	8-729-178-55	TRANSISTOR 2SC2785-E	
Q055	8-729-117-54	TRANSISTOR 2SA1175	
Q056	=>8-729-245-83	TRANSISTOR 2SC2458	
Q057	8-729-117-54	TRANSISTOR 2SA1175	
Q058	8-729-117-54	TRANSISTOR 2SA1175	
Q059	8-729-117-54	TRANSISTOR 2SA1175	
Q060	8-729-178-55	TRANSISTOR 2SC2785-E	
Q061	8-729-117-54	TRANSISTOR 2SA1175	
Q062	8-729-117-54	TRANSISTOR 2SA1175	
Q063	8-729-117-54	TRANSISTOR 2SA1175	
Q064	=>8-729-245-83	TRANSISTOR 2SC2458	
Q066	=>8-729-245-83	TRANSISTOR 2SC2458	
Q067	8-729-117-54	TRANSISTOR 2SA1175	
Q068	=>8-729-245-83	TRANSISTOR 2SC2458	
Q069	=>8-729-245-83	TRANSISTOR 2SC2458	
Q070	8-729-900-33	TRANSISTOR DTC144EF	
Q071	8-729-900-33	TRANSISTOR DTC144EF	
Q072	8-729-900-33	TRANSISTOR DTC144EF	
Q073	8-729-900-33	TRANSISTOR DTC144EF	
Q074	8-729-117-54	TRANSISTOR 2SA1175	

RESISTOR

Ref.No.	Part No.	Description				Remark
R001	1-247-826-00	CARBON	620	5%	1/6W	
R003	1-247-840-00	CARBON	2.4K	5%	1/6W	
R004	1-247-824-00	CARBON	510	5%	1/6W	
R005	1-247-853-00	CARBON	8.2K	5%	1/6W	
R006	1-247-862-00	CARBON	20K	5%	1/6W	
R007	1-247-854-00	CARBON	9.1K	5%	1/6W	
R008	1-247-853-00	CARBON	8.2K	5%	1/6W	
R009	1-247-854-00	CARBON	9.1K	5%	1/6W	
R013	1-247-831-00	CARBON	1K	5%	1/6W	
R014	1-247-825-00	CARBON	560	5%	1/6W	
R015	1-247-825-00	CARBON	560	5%	1/6W	
R016	1-247-825-00	CARBON	560	5%	1/6W	
R017	1-247-832-00	CARBON	1.1K	5%	1/6W	
R018	1-247-827-00	CARBON	680	5%	1/6W	
R019	1-247-828-00	CARBON	750	5%	1/6W	
R020	1-247-843-00	CARBON	3.3K	5%	1/6W	
R021	1-247-856-00	CARBON	11K	5%	1/6W	
R022	1-247-843-00	CARBON	3.3K	5%	1/6W	
R023	1-247-879-00	CARBON	100K	5%	1/6W	
R024	1-247-903-00	CARBON	1M	5%	1/6W	
R025	1-247-834-00	CARBON	1.3K	5%	1/6W	
R026	1-247-849-00	CARBON	5.6K	5%	1/6W	
R027	1-247-831-00	CARBON	1K	5%	1/6W	
R028	1-247-855-00	CARBON	10K	5%	1/6W	
R030	1-247-871-00	CARBON	47K	5%	1/6W	
R031	1-247-871-00	CARBON	47K	5%	1/6W	
R033	1-247-855-00	CARBON	10K	5%	1/6W	
R034	1-247-871-00	CARBON	47K	5%	1/6W	
R035	1-247-855-00	CARBON	10K	5%	1/6W	
R036	1-247-830-00	CARBON	910	5%	1/6W	
R037	1-247-847-00	CARBON	4.7K	5%	1/6W	
R038	1-247-855-00	CARBON	10K	5%	1/6W	
R039	1-247-880-00	CARBON	110K	5%	1/6W	
R040	1-247-831-00	CARBON	1K	5%	1/6W	
R041	1-247-883-00	CARBON	150K	5%	1/6W	
R042	1-247-867-00	CARBON	33K	5%	1/6W	
R043	1-247-869-00	CARBON	39K	5%	1/6W	
R044	1-247-840-00	CARBON	2.4K	5%	1/6W	
R045	1-247-837-00	CARBON	1.8K	5%	1/6W	
R046	1-247-865-00	CARBON	27K	5%	1/6W	
R048	1-247-855-00	CARBON	10K	5%	1/6W	
R049	1-247-871-00	CARBON	47K	5%	1/6W	
R050	1-247-855-00	CARBON	10K	5%	1/6W	
R051	1-247-863-00	CARBON	22K	5%	1/6W	
R052	1-247-864-00	CARBON	24K	5%	1/6W	
R053	1-247-872-00	CARBON	51K	5%	1/6W	
R054	1-247-863-00	CARBON	22K	5%	1/6W	
R055	1-247-824-00	CARBON	510	5%	1/6W	
R056	1-247-871-00	CARBON	47K	5%	1/6W	
R057	1-247-809-00	CARBON	120	5%	1/6W	
R058	1-247-813-00	CARBON	180	5%	1/6W	
R059	1-247-846-00	CARBON	4.3K	5%	1/6W	
R060	1-247-819-00	CARBON	330	5%	1/6W	
R061	1-247-879-00	CARBON	100K	5%	1/6W	
R062	1-247-853-00	CARBON	8.2K	5%	1/6W	
R063	1-247-848-00	CARBON	5.1K	5%	1/6W	
R064	1-247-901-00	CARBON	820K	5%	1/6W	
R065	1-247-901-00	CARBON	820K	5%	1/6W	
R066	1-247-812-00	CARBON	160	5%	1/6W	
R067	1-247-812-00	CARBON	160	5%	1/6W	
R068	1-247-842-00	CARBON	3K	5%	1/6W	
R069	1-247-821-00	CARBON	390	5%	1/6W	
R070	1-247-831-00	CARBON	1K	5%	1/6W	
R071	1-247-835-00	CARBON	1.5K	5%	1/6W	
R073	1-247-847-00	CARBON	4.7K	5%	1/6W	
R074	1-247-831-00	CARBON	1K	5%	1/6W	
R075	1-247-831-00	CARBON	1K	5%	1/6W	
R076	1-247-871-00	CARBON	47K	5%	1/6W	
R077	1-247-865-00	CARBON	27K	5%	1/6W	
R078	1-247-835-00	CARBON	1.5K	5%	1/6W	
R079	1-247-832-00	CARBON	1.1K	5%	1/6W	
R080	1-247-832-00	CARBON	1.1K	5%	1/6W	
R081	1-247-849-00	CARBON	5.6K	5%	1/6W	
R082	1-247-871-00	CARBON	47K	5%	1/6W	
R083	1-247-871-00	CARBON	47K	5%	1/6W	
R084	1-247-871-00	CARBON	47K	5%	1/6W	

Ref.No.	Part No.	Description				Remark
R085	1-247-837-00	CARBON	1.8K	5%	1/6W	
R086	1-247-826-00	CARBON	620	5%	1/6W	
R087	1-247-821-00	CARBON	1K	5%	1/6W	
R088	1-247-864-00	CARBON	24K	5%	1/6W	
R089	1-247-803-00	CARBON	68	5%	1/6W	
R090	1-247-863-00	CARBON	22K	5%	1/6W	
R091	1-247-895-00	CARBON	470K	5%	1/6W	
R092	1-247-873-00	CARBON	56K	5%	1/6W	
R093	1-247-819-00	CARBON	330	5%	1/6W	
R094	1-247-838-00	CARBON	2K	5%	1/6W	
R095	1-247-847-00	CARBON	4.7K	5%	1/6W	
R096	1-247-847-00	CARBON	4.7K	5%	1/6W	
R097	1-247-831-00	CARBON	1K	5%	1/6W	
R098	1-247-832-00	CARBON	1.1K	5%	1/6W	
R099	1-247-858-00	CARBON	13K	5%	1/6W	
R100	1-247-863-00	CARBON	22K	5%	1/6W	
R101	1-247-879-00	CARBON	100K	5%	1/6W	
R102	1-247-835-00	CARBON	1.5K	5%	1/6W	
R103	1-247-837-00	CARBON	1.8K	5%	1/6W	
R104	1-247-872-00	CARBON	51K	5%	1/6W	
R105	1-247-860-00	CARBON	16K	5%	1/6W	
R106	1-247-840-00	CARBON	2.4K	5%	1/6W	
R107	1-247-862-00	CARBON	20K	5%	1/6W	
R108	1-247-863-00	CARBON	22K	5%	1/6W	
R109	1-247-858-00	CARBON	13K	5%	1/6W	
R110	1-247-841-00	CARBON	2.7K	5%	1/6W	
R111	1-247-843-00	CARBON	3.3K	5%	1/6W	
R112	1-247-862-00	CARBON	20K	5%	1/6W	
R113	1-247-839-00	CARBON	2.2K	5%	1/6W	
R114	1-247-846-00	CARBON	4.3K	5%	1/6W	
R115	1-247-871-00	CARBON	47K	5%	1/6W	
R116	1-247-873-00	CARBON	56K	5%	1/6W	
R117	1-247-875-00	CARBON	68K	5%	1/6W	
R118	1-247-838-00	CARBON	2K	5%	1/6W	
R119	1-247-829-00	CARBON	820	5%	1/6W	
R120	1-247-859-00	CARBON	15K	5%	1/6W	
R121	1-247-855-00	CARBON	10K	5%	1/6W	
R122	1-247-832-00	CARBON	1.1K	5%	1/6W	
R123	1-247-831-00	CARBON	1K	5%	1/6W	
R124	1-247-809-00	CARBON	120	5%	1/6W	
R125	1-247-847-00	CARBON	4.7K	5%	1/6W	
R126	1-247-863-00	CARBON	22K	5%	1/6W	
R127	1-247-883-00	CARBON	150K	5%	1/6W	
R128	1-247-879-00	CARBON	100K	5%	1/6W	
R129	1-247-839-00	CARBON	2.2K	5%	1/6W	
R130	1-247-831-00	CARBON	1K	5%	1/6W	
R131	1-247-893-00	CARBON	390K	5%	1/6W	
R132	1-247-895-00	CARBON	470K	5%	1/6W	
R133	1-247-857-00	CARBON	12K	5%	1/6W	
R134	1-247-838-00	CARBON	2K	5%	1/6W	
R135	1-247-861-00	CARBON	18K	5%	1/6W	
R136	1-247-870-00	CARBON	43K	5%	1/6W	
R137	1-247-843-00	CARBON	3.3K	5%	1/6W	

Ref.No.	Part No.	Description				Remark
R138	1-247-830-00	CARBON	910	5%	1/6W	
R139	1-247-844-00	CARBON	3.6K	5%	1/6W	
R142	1-247-867-00	CARBON	33K	5%	1/6W	
R144	1-247-871-00	CARBON	47K	5%	1/6W	
R145	1-247-835-00	CARBON	1.5K	5%	1/6W	
R146	1-247-835-00	CARBON	1.5K	5%	1/6W	
R147	1-247-867-00	CARBON	33K	5%	1/6W	
R148	1-247-873-00	CARBON	56K	5%	1/6W	
R149	1-247-885-00	CARBON	180K	5%	1/6W	
R150	1-247-879-00	CARBON	100K	5%	1/6W	
R151	1-247-871-00	CARBON	47K	5%	1/6W	
R152	1-247-870-00	CARBON	43K	5%	1/6W	
R153	1-247-871-00	CARBON	47K	5%	1/6W	
R154	1-247-855-00	CARBON	10K	5%	1/6W	
R155	1-247-840-00	CARBON	2.4K	5%	1/6W	
R156	1-247-847-00	CARBON	4.7K	5%	1/6W	
R157	1-247-827-00	CARBON	680	5%	1/6W	
R158	1-247-814-00	CARBON	200	5%	1/6W	
R159	1-247-830-00	CARBON	910	5%	1/6W	
R160	1-247-830-00	CARBON	910	5%	1/6W	
R161	1-247-845-00	CARBON	3.9K	5%	1/6W	
R162	1-247-819-00	CARBON	330	5%	1/6W	
R163	1-247-847-00	CARBON	4.7K	5%	1/6W	
R164	1-247-835-00	CARBON	1.5K	5%	1/6W	
R165	1-247-842-00	CARBON	3K	5%	1/6W	
R166	1-247-854-00	CARBON	9.1K	5%	1/6W	
R167	1-247-846-00	CARBON	4.3K	5%	1/6W	
R168	1-247-843-00	CARBON	3.3K	5%	1/6W	
R169	1-247-886-00	CARBON	200K	5%	1/6W	
R170	1-247-882-00	CARBON	130K	5%	1/6W	
R171	1-247-871-00	CARBON	47K	5%	1/6W	
R172	1-247-822-00	CARBON	430	5%	1/6W	
R173	1-247-838-00	CARBON	2K	5%	1/6W	
R174	1-247-875-00	CARBON	68K	5%	1/6W	
R175	1-247-867-00	CARBON	33K	5%	1/6W	
R176	1-247-831-00	CARBON	1K	5%	1/6W	
R177	1-247-840-00	CARBON	2.4K	5%	1/6W	
R178	1-247-871-00	CARBON	47K	5%	1/6W	
R179	1-247-871-00	CARBON	47K	5%	1/6W	
R180	1-247-872-00	CARBON	51K	5%	1/6W	
R181	1-247-871-00	CARBON	47K	5%	1/6W	
R183	1-247-857-00	CARBON	12K	5%	1/6W	
R184	1-246-513-00	CARBON	47K	5%	1/4W	
R185	1-247-879-00	CARBON	100K	5%	1/6W	
R186	1-247-871-00	CARBON	47K	5%	1/6W	
R187	1-247-871-00	CARBON	47K	5%	1/6W	
R188	1-247-868-00	CARBON	36K	5%	1/6W	
R189	1-247-867-00	CARBON	33K	5%	1/6W	
R190	1-247-855-00	CARBON	10K	5%	1/6W	
R191	1-247-857-00	CARBON	12K	5%	1/6W	
R192	1-247-855-00	CARBON	10K	5%	1/6W	
R193	1-247-840-00	CARBON	2.4K	5%	1/6W	
R194	1-247-855-00	CARBON	10K	5%	1/6W	

Ref.No.	Part No.	Description				Remark
R195	1-247-857-00	CARBON	12K	5%	1/6W	
R196	1-247-868-00	CARBON	36K	5%	1/6W	
R197	1-247-873-00	CARBON	56K	5%	1/6W	
R198	1-247-875-00	CARBON	68K	5%	1/6W	
R199	1-247-873-00	CARBON	56K	5%	1/6W	
R200	1-247-875-00	CARBON	68K	5%	1/6W	
R201	1-247-866-00	CARBON	30K	5%	1/6W	
R202	1-247-824-00	CARBON	510	5%	1/6W	
R203	1-247-855-00	CARBON	10K	5%	1/6W	
R204	1-247-865-00	CARBON	39K	5%	1/6W	
R205	1-247-838-00	CARBON	2K	5%	1/6W	
R206	1-247-879-00	CARBON	100K	5%	1/6W	
R207	1-247-869-00	CARBON	39K	5%	1/6W	
R208	1-247-879-00	CARBON	100K	5%	1/6W	
R209	1-247-902-00	CARBON	910K	5%	1/6W	
R210	1-247-863-00	CARBON	8.2K	5%	1/6W	
R211	1-247-873-00	CARBON	56K	5%	1/6W	
R212	1-247-871-00	CARBON	47K	5%	1/6W	
R213	1-247-871-00	CARBON	47K	5%	1/6W	
R214	1-247-871-00	CARBON	47K	5%	1/6W	
R215	1-247-883-00	CARBON	150K	5%	1/6W	
R216	1-247-869-00	CARBON	15K	5%	1/6W	
R217	1-247-856-00	CARBON	11K	5%	1/6W	
R218	1-247-819-00	CARBON	330	5%	1/6W	
R219	1-247-818-00	CARBON	300	5%	1/6W	
R220	1-247-809-00	CARBON	120	5%	1/6W	
R221	1-247-831-00	CARBON	1K	5%	1/6W	
R222	1-247-812-00	CARBON	160	5%	1/6W	
R223	1-247-804-00	CARBON	75	5%	1/6W	
R224	1-247-831-00	CARBON	1K	5%	1/6W	
R225	1-247-807-00	CARBON	100	5%	1/6W	
R226	1-247-808-00	CARBON	110	5%	1/6W	
R227	1-247-823-00	CARBON	470	5%	1/6W	
R228	1-247-818-00	CARBON	300	5%	1/6W	
R229	1-247-863-00	CARBON	22K	5%	1/6W	
R230	1-247-871-00	CARBON	47K	5%	1/6W	
R231	1-247-871-00	CARBON	47K	5%	1/6W	
R232	1-247-893-00	CARBON	390K	5%	1/6W	
R233	1-247-862-00	CARBON	20K	5%	1/6W	
R234	1-247-863-00	CARBON	22K	5%	1/6W	
R235	1-247-863-00	CARBON	22K	5%	1/6W	
R236	1-247-871-00	CARBON	47K	5%	1/6W	
R237	1-247-835-00	CARBON	1.5K	5%	1/6W	
R238	1-247-866-00	CARBON	30K	5%	1/6W	
R239	1-247-857-00	CARBON	12K	5%	1/6W	
R240	1-247-869-00	CARBON	39K	5%	1/6W	
R241	1-247-804-00	CARBON	75	5%	1/6W	
R242	1-247-858-00	CARBON	13K	5%	1/6W	
R243	1-247-855-00	CARBON	10K	5%	1/6W	
R244	1-247-855-00	CARBON	10K	5%	1/6W	
R245	1-247-831-00	CARBON	1K	5%	1/6W	
R246	1-244-860-00	CARBON	300	5%	1/2W	
R247	1-247-847-00	CARBON	4.7K	5%	1/6W	

Ref.No.	Part No.	Description				Remark
R249	1-247-859-00	CARBON	15K	5%	1/6W	
R250	1-247-875-00	CARBON	68K	5%	1/6W	
R251	1-247-829-00	CARBON	820	5%	1/6W	
R252	1-247-803-00	CARBON	68	5%	1/6W	
R253	1-247-831-00	CARBON	1K	5%	1/6W	
R254	1-247-828-00	CARBON	750	5%	1/6W	
R255	1-247-840-00	CARBON	2.4K	5%	1/6W	
R256	1-247-848-00	CARBON	5.1K	5%	1/6W	
R257 ⚠	1-212-936-00	FUSIBLE	1.2	5%	1/2W	
R258	1-247-843-00	CARBON	3.3K	5%	1/6W	
R259	1-247-831-00	CARBON	1K	5%	1/6W	
R260	1-247-840-00	CARBON	2.4K	5%	1/6W	
R261	1-247-825-00	CARBON	560	5%	1/6W	
R262	1-247-829-00	CARBON	820	5%	1/6W	
R263	1-247-855-00	CARBON	10K	5%	1/6W	
R264	1-247-867-00	CARBON	33K	5%	1/6W	
R265	1-247-871-00	CARBON	47K	5%	1/6W	
R266	1-247-871-00	CARBON	47K	5%	1/6W	
R267	1-247-839-00	CARBON	2.2K	5%	1/6W	
R268	1-247-847-00	CARBON	4.7K	5%	1/6W	
R269	1-247-862-00	CARBON	20K	5%	1/6W	
R270	1-247-869-00	CARBON	39K	5%	1/6W	
R271	1-247-825-00	CARBON	560	5%	1/6W	
R272	1-247-825-00	CARBON	560	5%	1/6W	
R273	1-247-842-00	CARBON	3K	5%	1/6W	
R274	1-247-818-00	CARBON	300	5%	1/6W	
R275	1-247-860-00	CARBON	16K	5%	1/6W	
R276	1-247-822-00	CARBON	430	5%	1/6W	
R277	1-247-829-00	CARBON	820	5%	1/6W	
R278	1-247-819-00	CARBON	330	5%	1/6W	
R279	1-247-831-00	CARBON	1K	5%	1/6W	
R280	1-247-835-00	CARBON	1.5K	5%	1/6W	
R281	1-247-832-00	CARBON	1.1K	5%	1/6W	
R282	1-247-843-00	CARBON	3.3K	5%	1/6W	
R283	1-247-861-00	CARBON	18K	5%	1/6W	
R284	1-247-839-00	CARBON	2.2K	5%	1/6W	
R285	1-247-815-00	CARBON	220	5%	1/6W	
R286	1-247-831-00	CARBON	1K	5%	1/6W	
R287	1-246-493-00	CARBON	6.8K	5%	1/4W	
R288	1-247-783-00	CARBON	10	5%	1/6W	
R289	1-247-820-00	CARBON	360	5%	1/6W	
R290	1-247-855-00	CARBON	10K	5%	1/6W	
R291	1-247-859-00	CARBON	15K	5%	1/6W	
R292	1-247-837-00	CARBON	1.8K	5%	1/6W	
R293	1-247-819-00	CARBON	330	5%	1/6W	
R294	1-247-839-00	CARBON	2.2K	5%	1/6W	
R295	1-247-804-00	CARBON	75	5%	1/6W	
R296	1-247-835-00	CARBON	1.5K	5%	1/6W	
R297	1-247-831-00	CARBON	1K	5%	1/6W	
R298	1-247-826-00	CARBON	620	5%	1/6W	
R300	1-247-863-00	CARBON	22K	5%	1/6W	
R301	1-247-839-00	CARBON	2.2K	5%	1/6W	
R302	1-247-819-00	CARBON	330	5%	1/6W	

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description				Remark
R303	1-247-816-00	CARBON	240	5%	1/6W	
R304	1-247-853-00	CARBON	8.2K	5%	1/6W	
R305	1-247-861-00	CARBON	18K	5%	1/6W	
R306	1-247-859-00	CARBON	15K	5%	1/6W	
R307	1-247-871-00	CARBON	47K	5%	1/6W	
R308	1-247-871-00	CARBON	47K	5%	1/6W	
R309	1-247-867-00	CARBON	33K	5%	1/6W	
R310	1-247-837-00	CARBON	1.8K	5%	1/6W	
R311	1-247-867-00	CARBON	33K	5%	1/6W	
R312	1-247-877-00	CARBON	82K	5%	1/6W	
R313	1-247-813-00	CARBON	180	5%	1/6W	
R314	1-247-856-00	CARBON	11K	5%	1/6W	
R315	1-247-856-00	CARBON	11K	5%	1/6W	
R316	1-247-813-00	CARBON	180	5%	1/6W	
R317	1-247-851-00	CARBON	6.8K	5%	1/6W	
R318	1-247-823-00	CARBON	470	5%	1/6W	
R319	1-247-811-00	CARBON	150	5%	1/6W	
R320	1-247-838-00	CARBON	2K	5%	1/6W	
R321	1-247-836-00	CARBON	1.6K	5%	1/6W	
R322	1-247-823-00	CARBON	470	5%	1/6W	
R323	1-247-851-00	CARBON	6.8K	5%	1/6W	
R324	1-247-849-00	CARBON	5.6K	5%	1/6W	
R325	1-247-833-00	CARBON	1.2K	5%	1/6W	
R326	1-247-821-00	CARBON	390	5%	1/6W	
R327	1-247-871-00	CARBON	47K	5%	1/6W	
R328	1-247-831-00	CARBON	1K	5%	1/6W	
R329	1-247-835-00	CARBON	1.5K	5%	1/6W	
R330	1-247-799-00	CARBON	47	5%	1/6W	
R331	1-247-863-00	CARBON	22K	5%	1/6W	
R340	1-247-825-00	CARBON	560	5%	1/6W	
R341	1-247-862-00	CARBON	20K	5%	1/6W	
R413	1-246-514-00	CARBON	51K	5%	1/4W	
R450	1-247-790-00	CARBON	20	5%	1/6W	
R451	1-247-845-00	CARBON	3.9K	5%	1/6W	
R452	1-247-776-00	CARBON	5.1	5%	1/6W	
R453	1-247-853-00	CARBON	8.2K	5%	1/6W	
R454	1-247-776-00	CARBON	5.1	5%	1/6W	
R455	1-247-857-00	CARBON	12K	5%	1/6W	
R456	1-247-863-00	CARBON	22K	5%	1/6W	
R460	1-247-871-00	CARBON	47K	5%	1/6W	
R461	1-247-866-00	CARBON	30K	5%	1/6W	
R462	1-246-490-00	CARBON	5.1K	5%	1/4W	

VARIABLE RESISTOR

RV001	1-228-745-00	RES, ADJ, CARBON 1K	
RV002	1-228-747-00	RES, ADJ, CARBON 4.7K	
RV003	1-228-744-00	RES, ADJ, CARBON 470	
RV004	1-228-747-00	RES, ADJ, CARBON 4.7K	
RV005	1-228-747-00	RES, ADJ, CARBON 4.7K	
RV006	1-228-747-00	RES, ADJ, CARBON 4.7K	
RV007	1-228-749-00	RES, ADJ, CARBON 22K	
RV008	1-228-746-00	RES, ADJ, CARBON 2.2K	
RV009	1-228-750-00	RES, ADJ, CARBON 47K	
RV010	1-228-746-00	RES, ADJ, CARBON 2.2K	
RV011	1-228-750-00	RES, ADJ, CARBON 47K	
RV012	1-228-744-00	RES, ADJ, CARBON 470	
RV013	1-228-750-00	RES, ADJ, CARBON 47K	
RV014	1-228-748-00	RES, ADJ, CARBON 10K	
RV017	1-228-747-00	RES, ADJ, CARBON 4.7K	
RV018	1-228-745-00	RES, ADJ, CARBON 1K	
RV019	1-228-748-00	RES, ADJ, CARBON 10K	
RV020	1-230-173-00	RES, VAR, CARBON 2.2K	
RV021	1-228-749-00	RES, ADJ, CARBON 22K	
RV022	1-228-746-00	RES, ADJ, CARBON 2.2K	

SWITCH

S001	1-553-725-21	SWITCH, SLIDE

TRANSFORMER

T001	1-426-159-00	COIL (EQT)
T002	1-235-157-00	FILTER, BAND PASS
T003	1-426-077-00	TRANSFORMER, EQUALIZER (2)
T004	1-426-089-00	COIL (EQT)
T005	1-404-410-00	COIL, TRAP

CRYSTAL

X001	1-527-396-00	CRYSTAL, OSC

****

	▲:A-6713-176-A	AF-2 BOARD, COMPLETE
		**********
	▲:3-682-086-00	CASE (1), SHIELD, AF
	▲:3-682-087-00	LID, UPPER, SHIELD CASE (1), AF
	▲:3-682-088-00	LID, REAR, SHIELD CASE (1), AF
	▲:3-682-089-00	CASE (2), SHIELD, AF
	▲:3-682-090-00	LID, UPPER, SHIELD CASE (2), AF
	▲:3-682-091-00	LID, REAR, SHIELD CASE (2), AF
	▲:3-682-092-00	CASE (3), SHIELD, AF
	▲:3-682-093-00	LID, UPPER, SHIELD CASE (3), AF
	▲:3-682-094-00	LID, REAR, SHIELD CASE (3), AF
	3-682-125-00	INSULATOR, AF

CAPACITOR

C001	1-123-310-00	ELECT	470MF	20%	10V
C002	1-123-306-00	ELECT	47MF	20%	10V
C003	1-123-306-00	ELECT	47MF	20%	10V
C004	1-123-307-00	ELECT	100MF	20%	10V
C005	1-130-477-00	MYLAR	0.0033MF	5%	50V
C006	1-130-483-00	MYLAR	0.01MF	5%	50V
C007	1-123-356-00	ELECT	10MF	20%	16V
C008	1-102-824-00	CERAMIC	470PF	5%	50V
C009	1-102-824-00	CERAMIC	470PF	5%	50V
C010	1-161-034-00	CERAMIC	0.022MF	20%	25V
C011	1-123-356-00	ELECT	10MF	20%	16V
C012	1-123-354-00	ELECT	3.3MF	20%	50V
C013	1-123-356-00	ELECT	10MF	20%	16V
C014	1-130-495-00	MYLAR	0.1MF	5%	50V

AF-2

Ref.No.	Part No.	Description				Remark
C015	1-123-306-00	ELECT	47MF	20%	10V	
C016	1-161-032-00	CERAMIC	0.01MF	20%	25V	
C017	1-102-824-00	CERAMIC	470PF	5%	50V	
C018	1-123-356-00	ELECT	10MF	20%	16V	
C019	1-161-034-00	CERAMIC	0.022MF	20%	25V	
C020	1-123-356-00	ELECT	10MF	20%	16V	
C021	1-123-356-00	ELECT	10MF	20%	16V	
C022	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C023	1-161-032-00	CERAMIC	0.01MF	20%	25V	
C024	1-123-318-00	ELECT	33MF	20%	16V	
C025	1-161-032-00	CERAMIC	0.01MF	20%	25V	
C026	1-161-034-00	CERAMIC	0.022MF	20%	25V	
C027	1-123-318-00	ELECT	33MF	20%	16V	
C028	1-102-951-00	CERAMIC	15PF	5%	50V	
C029	1-101-888-00	CERAMIC	68PF	5%	50V	
C030	1-102-973-00	CERAMIC	100PF	5%	50V	
C031	1-102-947-00	CERAMIC	10PF	5%	50V	
C032	1-123-318-00	ELECT	33MF	20%	16V	
C033	1-161-032-00	CERAMIC	0.01MF	20%	25V	
C034	1-123-318-00	ELECT	33MF	20%	16V	
C035	1-123-318-00	ELECT	33MF	20%	16V	
C036	1-123-318-00	ELECT	33MF	20%	16V	
C037	1-161-032-00	CERAMIC	0.01MF	20%	25V	
C038	1-102-978-00	CERAMIC	220PF	5%	50V	
C039	1-123-308-00	ELECT	220MF	20%	10V	
C040	1-130-493-00	MYLAR	0.068MF	5%	50V	
C041	1-102-824-00	CERAMIC	470PF	5%	50V	
C042	1-102-979-00	CERAMIC	240PF	5%	50V	
C043	1-161-032-00	CERAMIC	0.01MF	20%	25V	
C046	1-161-013-00	CERAMIC	0.01MF	20%	25V	
C047	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C051	1-130-487-00	MYLAR	0.022MF	5%	50V	
C101	1-123-356-00	ELECT	10MF	20%	16V	
C102	1-123-318-00	ELECT	33MF	20%	16V	
C103	1-123-330-00	ELECT	22MF	20%	16V	
C104	1-123-356-00	ELECT	10MF	20%	16V	
C105	1-123-356-00	ELECT	10MF	20%	16V	
C106	1-123-356-00	ELECT	10MF	20%	16V	
C107	1-123-318-00	ELECT	33MF	20%	16V	
C108	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C109	1-131-416-00	TANTALUM	1.5MF	20%	16V	
C110	1-131-347-00	TANTALUM	1MF	20%	16V	
C111	1-131-383-00	TANTALUM	10MF	20%	6.3V	
C112	1-123-296-00	ELECT	220MF	20%	6.3V	
C113	1-130-485-00	MYLAR	0.015MF	5%	50V	
C114	1-123-356-00	ELECT	10MF	20%	16V	
C116	1-161-032-00	CERAMIC	0.01MF	20%	25V	
C117	1-123-318-00	ELECT	33MF	20%	16V	
C118	1-130-485-00	MYLAR	0.015MF	5%	50V	
C119	1-130-493-00	MYLAR	0.068MF	5%	50V	
C120	1-130-493-00	MYLAR	0.068MF	5%	50V	
C121	1-123-306-00	ELECT	47MF	20%	10V	
C122	1-130-477-00	MYLAR	0.0033MF	5%	50V	
C123	1-123-306-00	ELECT	47MF	20%	10V	
C124	1-123-330-00	ELECT	22MF	20%	16V	

Ref.No.	Part No.	Description				Remark
C125	1-123-306-00	ELECT	47MF	20%	10V	
C126	1-130-483-00	MYLAR	0.01MF	5%	50V	
C127	1-123-306-00	ELECT	47MF	20%	10V	
C128	1-123-306-00	ELECT	47MF	20%	10V	
C129	1-161-032-00	CERAMIC	0.01MF	20%	25V	
C130	1-123-356-00	ELECT	10MF	20%	16V	
C131	1-123-356-00	ELECT	10MF	20%	16V	
C132	1-123-306-00	ELECT	47MF	20%	10V	
C134	1-123-306-00	ELECT	47MF	20%	10V	
C135	1-123-296-00	ELECT	100MF	20%	6.3V	
C136	1-123-318-00	ELECT	33MF	20%	16V	
C137	1-123-306-00	ELECT	47MF	20%	10V	
C138	1-123-306-00	ELECT	47MF	20%	10V	
C139	1-123-306-00	ELECT	47MF	20%	10V	
C140	1-123-306-00	ELECT	47MF	20%	10V	
C141	1-123-330-00	ELECT	22MF	20%	16V	
C142	1-123-330-00	ELECT	22MF	20%	16V	
C143	1-161-035-00	CERAMIC	0.033MF	20%	25V	
C144	1-123-307-00	ELECT	100MF	20%	10V	
C145	1-161-034-00	CERAMIC	0.022MF	20%	25V	
C146	1-123-330-00	ELECT	22MF	20%	16V	
C147	1-161-032-00	CERAMIC	0.01MF	20%	25V	
C148	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C149	1-102-121-00	CERAMIC	0.0022MF	10%	50V	
C150	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C151	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C152	1-161-036-00	CERAMIC	0.047MF	20%	25V	
C153	1-123-318-00	ELECT	33MF	20%	16V	
C154	1-102-121-00	CERAMIC	0.0022MF	10%	50V	
C155	1-161-032-00	CERAMIC	0.01MF	20%	25V	
C156	1-161-032-00	CERAMIC	0.01MF	20%	25V	
C157	1-123-318-00	ELECT	33MF	20%	16V	
C158	1-161-032-00	CERAMIC	0.01MF	20%	25V	
C159	1-161-032-00	CERAMIC	0.01MF	20%	25V	
C160	1-161-032-00	CERAMIC	0.01MF	20%	25V	
C161	1-101-880-00	CERAMIC	47PF	5%	50V	
C162	1-161-032-00	CERAMIC	0.01MF	20%	25V	
C163	1-123-318-00	ELECT	33MF	20%	16V	
C164	1-123-306-00	ELECT	47MF	20%	10V	
C165	1-123-318-00	ELECT	33MF	20%	16V	
C166	1-123-318-00	ELECT	33MF	20%	16V	
C167	1-130-017-00	FILM	820PF	5%	50V	
C169	1-102-824-00	CERAMIC	470PF	5%	50V	
C170	1-161-032-00	CERAMIC	0.01MF	20%	25V	
C201	1-123-356-00	ELECT	10MF	20%	16V	
C202	1-123-318-00	ELECT	33MF	20%	16V	
C203	1-123-330-00	ELECT	22MF	20%	16V	
C204	1-123-356-00	ELECT	10MF	20%	16V	
C205	1-123-356-00	ELECT	10MF	20%	16V	
C206	1-123-356-00	ELECT	10MF	20%	16V	
C207	1-123-318-00	ELECT	33MF	20%	16V	
C208	1-102-074-00	CERAMIC	0.001MF	10%	50V	

Ref.No.	Part No.	Description			Remark
C209	1-131-416-00	TANTALUM	1.5MF	20%	16V
C210	1-131-347-00	TANTALUM	1MF	20%	16V
C211	1-131-383-00	TANTALUM	10MF	20%	6.3V
C212	1-123-296-00	ELECT	220MF	20%	6.3V
C213	1-130-485-00	MYLAR	0.015MF	5%	50V
C214	1-123-356-00	ELECT	10MF	20%	16V
C216	1-161-032-00	CERAMIC	0.01MF	20%	25V
C217	1-123-318-00	ELECT	33MF	20%	16V
C218	1-130-485-00	MYLAR	0.015MF	5%	50V
C219	1-130-493-00	MYLAR	0.068MF	5%	50V
C220	1-130-493-00	MYLAR	0.068MF	5%	50V
C221	1-123-306-00	ELECT	47MF	20%	10V
C222	1-130-477-00	MYLAR	0.0033MF	5%	50V
C223	1-123-306-00	ELECT	47MF	20%	10V
C224	1-123-330-00	ELECT	22MF	20%	16V
C225	1-123-306-00	ELECT	47MF	20%	10V
C226	1-130-483-00	MYLAR	0.01MF	5%	50V
C227	1-123-306-00	ELECT	47MF	20%	10V
C228	1-123-306-00	ELECT	47MF	20%	10V
C229	1-161-032-00	CERAMIC	0.01MF	20%	25V
C230	1-123-356-00	ELECT	10MF	20%	16V
C231	1-123-356-00	ELECT	10MF	20%	16V
C232	1-123-306-00	ELECT	47MF	20%	10V
C234	1-123-306-00	ELECT	47MF	20%	10V
C235	1-123-295-00	ELECT	100MF	20%	6.3V
C236	1-123-318-00	ELECT	33MF	20%	16V
C237	1-123-306-00	ELECT	47MF	20%	10V
C238	1-123-306-00	ELECT	47MF	20%	10V
C239	1-123-306-00	ELECT	47MF	20%	10V
C240	1-123-306-00	ELECT	47MF	20%	10V
C241	1-123-330-00	ELECT	22MF	20%	16V
C242	1-123-330-00	ELECT	22MF	20%	16V
C243	1-161-035-00	CERAMIC	0.033MF	20%	25V
C244	1-123-307-00	ELECT	100MF	20%	10V
C245	1-161-034-00	CERAMIC	0.022MF	20%	25V
C246	1-123-330-00	ELECT	22MF	20%	16V
C247	1-161-032-00	CERAMIC	0.01MF	20%	25V
C248	1-102-074-00	CERAMIC	0.001MF	10%	50V
C249	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C250	1-102-074-00	CERAMIC	0.001MF	10%	50V
C251	1-102-074-00	CERAMIC	0.001MF	10%	50V
C252	1-161-036-00	CERAMIC	0.047MF	20%	25V
C253	1-123-318-00	ELECT	33MF	20%	16V
C254	1-102-121-00	CERAMIC	0.0022MF	10%	50V
C255	1-161-032-00	CERAMIC	0.01MF	20%	25V
C256	1-161-032-00	CERAMIC	0.01MF	20%	25V
C257	1-123-318-00	ELECT	33MF	20%	16V
C258	1-161-032-00	CERAMIC	0.01MF	20%	25V
C259	1-161-032-00	CERAMIC	0.01MF	20%	25V
C260	1-161-032-00	CERAMIC	0.01MF	20%	25V
C261	1-101-880-00	CERAMIC	47PF	5%	50V
C262	1-161-032-00	CERAMIC	0.01MF	20%	25V
C263	1-123-318-00	ELECT	33MF	20%	16V

Ref.No.	Part No.	Description			Remark
C264	1-123-306-00	ELECT	47MF	20%	10V
C265	1-123-318-00	ELECT	33MF	20%	16V
C266	1-123-318-00	ELECT	33MF	20%	16V
C267	1-130-017-00	FILM	820PF	5%	50V
C269	1-102-824-00	CERAMIC	470PF	5%	50V
C270	1-161-032-00	CERAMIC	0.01MF	20%	25V

CONNECTOR

CN401▲	1-560-898-00	PIN, CONNECTOR 10P
CN402▲	1-560-890-00	PIN, CONNECTOR 2P
CN403▲	1-560-894-00	PIN, CONNECTOR 6P
CN404▲	1-560-897-00	PIN, CONNECTOR 9P
CN405▲	1-560-892-00	PIN, CONNECTOR 4P

DIODE

D001	8-719-911-19	DIODE 1SS119
D002	8-719-000-04	DIODE MC911
D003	8-719-000-06	DIODE MC921
D004	8-719-911-19	DIODE 1SS119
D005	8-719-000-06	DIODE MC921
D007	8-719-911-19	DIODE 1SS119
D008	8-719-911-19	DIODE 1SS119
D009	8-719-911-19	DIODE 1SS119
D010	8-719-911-19	DIODE 1SS119
D011	8-719-100-30	DIODE RD5.1E-B2
D012	8-719-100-30	DIODE RD5.1E-B2
D013	8-719-100-38	DIODE RD6.2E-B2
D014	8-719-100-38	DIODE RD6.2E-B2
D015	8-719-911-19	DIODE 1SS119
D016	8-719-911-19	DIODE 1SS119
D017	8-719-911-19	DIODE 1SS119
D018	8-719-911-19	DIODE 1SS119
D019	8-719-911-19	DIODE 1SS119
D101	8-719-000-12	DIODE MC931
D102	8-719-100-26	DIODE RD4.7E-B1
D103	8-719-102-86	DIODE RD9.1E-N1
D104	8-719-911-19	DIODE 1SS119
D105	8-719-911-19	DIODE 1SS119
D106	8-719-911-19	DIODE 1SS119
D107	8-719-911-19	DIODE 1SS119
D108	8-719-911-19	DIODE 1SS119
D201	8-719-000-12	DIODE MC931
D202	8-719-100-26	DIODE RD4.7E-B1
D203	8-719-102-86	DIODE RD9.1E-N1
D204	8-719-911-19	DIODE 1SS119
D205	8-719-911-19	DIODE 1SS119
D206	8-719-911-19	DIODE 1SS119
D207	8-719-911-19	DIODE 1SS119
D208	8-719-911-19	DIODE 1SS119

IC

IC001=>	8-759-240-30	IC TC4030BP
IC002=>	8-759-240-11	IC TC4011BP
IC003=>	8-759-240-66	IC TC4066BP

AF-2

Ref.No.	Part No.	Description	Remark
IC004	8-759-220-76	IC TC40H076P	
IC005=>8-759-240-24		IC TC4024BP	
IC006	8-759-240-69	IC UPD4069UBP	
IC007	8-750-000-74	IC CX20061	
IC009	8-759-145-58	IC UPC4558C	
IC010	8-759-145-58	IC UPC4558C	
IC101	8-750-000-74	IC CX20061	
IC102	8-759-208-94	IC CX894	
IC103	8-752-008-30	IC CX20083	
IC104	8-759-700-62	IC NJM4562D	
IC105	8-759-145-58	IC UPC4558C	
IC106	8-759-606-64	IC CX864	
IC107	8-759-201-29	IC TC9122P	
IC108	8-759-250-81	IC TC5081AP	
IC109	8-759-110-37	IC UPC1037H	
IC110	8-759-110-37	IC UPC1037H	
IC201	8-750-000-74	IC CX20061	
IC202	8-759-208-94	IC CX894	
IC203	8-752-008-30	IC CX20083	
IC204	8-759-700-62	IC NJM4562D	
IC205	8-759-145-58	IC UPC4558C	
IC206	8-759-606-64	IC CX864	
IC207	8-759-201-29	IC TC9122P	
IC208	8-759-250-81	IC TC5081AP	
IC209	8-759-110-37	IC UPC1037H	
IC210	8-759-110-37	IC UPC1037H	
		COIL	
L001	1-408-615-00	MICRO INDUCTOR 100UH	
L002	1-408-615-00	MICRO INDUCTOR 100UH	
L003	1-408-615-00	MICRO INDUCTOR 100UH	
L004	1-408-615-00	MICRO INDUCTOR 100UH	
L101	1-408-623-00	MICRO INDUCTOR 470UH	
L102	1-408-605-00	MICRO INDUCTOR 15UH	
L104	1-408-605-00	MICRO INDUCTOR 15UH	
L105	1-408-615-00	MICRO INDUCTOR 100UH	
L107	1-408-615-00	MICRO INDUCTOR 100UH	
L108	1-408-615-00	MICRO INDUCTOR 100UH	
L201	1-408-623-00	MICRO INDUCTOR 470UH	
L202	1-408-603-00	MICRO INDUCTOR 10UH	
L204	1-408-603-00	MICRO INDUCTOR 10UH	
L205	1-408-615-00	MICRO INDUCTOR 100UH	
L207	1-408-615-00	MICRO INDUCTOR 100UH	
L208	1-408-615-00	MICRO INDUCTOR 100UH	
		TRANSISTOR	
Q001	=>8-729-245-83	TRANSISTOR 2SC2458	
Q002	8-729-113-33	TRANSISTOR 2SB733-4	
Q004	=>8-729-245-83	TRANSISTOR 2SC2458	
Q005	8-729-113-33	TRANSISTOR 2SB733-4	
Q006	=>8-729-245-83	TRANSISTOR 2SC2458	
Q007	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q008	=>8-729-245-83	TRANSISTOR 2SC2458	
Q009	=>8-729-245-83	TRANSISTOR 2SC2458	
Q010	=>8-729-245-83	TRANSISTOR 2SC2458	
Q011	=>8-729-245-83	TRANSISTOR 2SC2458	
Q012	=>8-729-245-83	TRANSISTOR 2SC2458	
Q013	=>8-729-245-83	TRANSISTOR 2SC2458	
Q014	=>8-729-245-83	TRANSISTOR 2SC2458	
Q015	=>8-729-245-83	TRANSISTOR 2SC2458	
Q016	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q017	=>8-729-245-83	TRANSISTOR 2SC2458	
Q018	=>8-729-245-83	TRANSISTOR 2SC2458	
Q019	=>8-729-245-83	TRANSISTOR 2SC2458	
Q020	=>8-729-245-83	TRANSISTOR 2SC2458	
Q021	=>8-729-245-83	TRANSISTOR 2SC2458	
Q022	=>8-729-245-83	TRANSISTOR 2SC2458	
Q023	=>8-729-245-83	TRANSISTOR 2SC2458	
Q024	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q025	=>8-729-245-83	TRANSISTOR 2SC2458	
Q026	=>8-729-245-83	TRANSISTOR 2SC2458	
Q027	=>8-729-245-83	TRANSISTOR 2SC2458	
Q028	=>8-729-245-83	TRANSISTOR 2SC2458	
Q101	8-769-193-09	TRANSISTOR 2SK43-3	
Q102	8-769-193-09	TRANSISTOR 2SK43-3	
Q103	8-769-193-09	TRANSISTOR 2SK43-3	
Q104	=>8-729-245-83	TRANSISTOR 2SC2458	
Q105	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q106	=>8-729-245-83	TRANSISTOR 2SC2458	
Q107	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q108	=>8-729-245-83	TRANSISTOR 2SC2458	
Q109	=>8-729-245-83	TRANSISTOR 2SC2458	
Q110	=>8-729-245-83	TRANSISTOR 2SC2458	
Q111	=>8-729-245-83	TRANSISTOR 2SC2458	
Q112	=>8-729-245-83	TRANSISTOR 2SC2458	
Q113	=>8-729-245-83	TRANSISTOR 2SC2458	
Q114	=>8-729-245-83	TRANSISTOR 2SC2458	
Q115	=>8-729-245-83	TRANSISTOR 2SC2458	
Q116	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q201	8-769-193-09	TRANSISTOR 2SK43-3	
Q202	8-769-193-09	TRANSISTOR 2SK43-3	
Q203	8-769-193-09	TRANSISTOR 2SK43-3	
Q204	=>8-729-245-83	TRANSISTOR 2SC2458	
Q205	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q206	=>8-729-245-83	TRANSISTOR 2SC2458	
Q207	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q208	=>8-729-245-83	TRANSISTOR 2SC2458	
Q209	=>8-729-245-83	TRANSISTOR 2SC2458	
Q210	=>8-729-245-83	TRANSISTOR 2SC2458	
Q211	=>8-729-245-83	TRANSISTOR 2SC2458	
Q212	=>8-729-245-83	TRANSISTOR 2SC2458	
Q213	=>8-729-245-83	TRANSISTOR 2SC2458	
Q214	=>8-729-245-83	TRANSISTOR 2SC2458	
Q215	=>8-729-245-83	TRANSISTOR 2SC2458	
Q216	=>8-729-204-83	TRANSISTOR 2SA1048-GR	

RESISTOR

Ref.No.	Part No.	Description				Remark
R001 ⚠	1-247-636-00	CARBON	0.47	5%	1/8W	F
R002	1-247-867-00	CARBON	33K	5%	1/6W	
R003	1-247-863-00	CARBON	22K	5%	1/6W	
R004	1-247-839-00	CARBON	2.2K	5%	1/6W	
R005	1-247-839-00	CARBON	2.2K	5%	1/6W	
R006	1-247-863-00	CARBON	22K	5%	1/6W	
R007	1-247-863-00	CARBON	22K	5%	1/6W	
R008	1-247-879-31	CARBON	100K	5%	1/6W	
R009	1-247-847-00	CARBON	4.7K	5%	1/6W	
R010	1-247-863-00	CARBON	22K	5%	1/6W	
R011	1-247-863-00	CARBON	22K	5%	1/6W	
R012	1-247-839-00	CARBON	2.2K	5%	1/6W	
R013	1-247-839-00	CARBON	2.2K	5%	1/6W	
R014	1-247-855-00	CARBON	10K	5%	1/6W	
R015	1-247-855-00	CARBON	10K	5%	1/6W	
R016	1-247-855-00	CARBON	10K	5%	1/6W	
R017	1-247-863-00	CARBON	22K	5%	1/6W	
R018	1-247-863-00	CARBON	22K	5%	1/6W	
R019	1-247-855-00	CARBON	10K	5%	1/6W	
R020	1-247-839-00	CARBON	2.2K	5%	1/6W	
R021	1-247-867-00	CARBON	33K	5%	1/6W	
R022	1-247-847-00	CARBON	4.7K	5%	1/6W	
R023	1-247-863-00	CARBON	22K	5%	1/6W	
R024	1-247-879-00	CARBON	100K	5%	1/6W	
R025	1-247-831-00	CARBON	1K	5%	1/6W	
R026	1-247-879-00	CARBON	100K	5%	1/6W	
R027	1-247-831-00	CARBON	1K	5%	1/6W	
R028	1-247-839-00	CARBON	2.2K	5%	1/6W	
R029	1-247-863-00	CARBON	22K	5%	1/6W	
R030	1-247-867-00	CARBON	33K	5%	1/6W	
R031	1-247-839-00	CARBON	2.2K	5%	1/6W	
R032	1-247-857-00	CARBON	12K	5%	1/6W	
R033	1-247-863-00	CARBON	22K	5%	1/6W	
R034	1-247-863-00	CARBON	22K	5%	1/6W	
R035	1-247-863-00	CARBON	22K	5%	1/6W	
R036	1-247-863-00	CARBON	22K	5%	1/6W	
R037	1-247-863-00	CARBON	22K	5%	1/6W	
R038	1-247-863-00	CARBON	22K	5%	1/6W	
R039	1-247-863-00	CARBON	22K	5%	1/6W	
R040	1-247-863-00	CARBON	22K	5%	1/6W	
R041	1-247-879-00	CARBON	100K	5%	1/6W	
R042	1-247-847-00	CARBON	4.7K	5%	1/6W	
R043	1-247-855-00	CARBON	10K	5%	1/6W	
R044	1-247-855-00	CARBON	10K	5%	1/6W	
R045	1-247-863-00	CARBON	22K	5%	1/6W	
R046	1-247-877-00	CARBON	82K	5%	1/6W	
R047	1-247-839-00	CARBON	2.2K	5%	1/6W	
R048	1-247-871-00	CARBON	47K	5%	1/6W	
R049	1-247-875-00	CARBON	68K	5%	1/6W	
R050	1-247-857-00	CARBON	12K	5%	1/6W	
R051	1-247-895-00	CARBON	470K	5%	1/6W	
R052	1-247-863-00	CARBON	22K	5%	1/6W	

Ref.No.	Part No.	Description				Remark
R053	1-247-871-00	CARBON	47K	5%	1/6W	
R054	1-247-807-00	CARBON	100	5%	1/6W	
R055	1-247-831-00	CARBON	1K	5%	1/6W	
R056	1-247-863-00	CARBON	22K	5%	1/6W	
R057	1-247-863-00	CARBON	22K	5%	1/6W	
R058	1-247-863-00	CARBON	22K	5%	1/6W	
R059	1-247-863-00	CARBON	22K	5%	1/6W	
R061	1-247-867-00	CARBON	33K	5%	1/6W	
R063	1-247-839-00	CARBON	2.2K	5%	1/6W	
R064	1-247-839-00	CARBON	2.2K	5%	1/6W	
R065	1-247-839-00	CARBON	2.2K	5%	1/6W	
R066	1-247-871-00	CARBON	47K	5%	1/6W	
R067	1-247-863-00	CARBON	22K	5%	1/6W	
R068	1-247-903-00	CARBON	1M	5%	1/6W	
R069	1-247-855-00	CARBON	10K	5%	1/6W	
R070	1-247-863-00	CARBON	22K	5%	1/6W	
R071	1-247-824-00	CARBON	510	5%	1/6W	
R072	1-247-807-00	CARBON	100	5%	1/6W	
R073	1-247-823-00	CARBON	470	5%	1/6W	
R074	1-247-843-00	CARBON	3.3K	5%	1/6W	
R075	1-247-855-00	CARBON	10K	5%	1/6W	
R076	1-247-855-00	CARBON	10K	5%	1/6W	
R077	1-247-855-00	CARBON	10K	5%	1/6W	
R078	1-247-883-00	CARBON	150K	5%	1/6W	
R079	1-247-903-00	CARBON	1M	5%	1/6W	
R080	1-247-890-00	CARBON	300K	5%	1/6W	
R081	1-247-871-00	CARBON	47K	5%	1/6W	
R082	1-247-807-00	CARBON	100	5%	1/6W	
R083	1-247-867-00	CARBON	33K	5%	1/6W	
R084	1-247-833-00	CARBON	1.2K	5%	1/6W	
R085	1-247-847-00	CARBON	4.7K	5%	1/6W	
R086	1-247-855-00	CARBON	10K	5%	1/6W	
R087	1-247-863-00	CARBON	22K	5%	1/6W	
R101	1-247-855-00	CARBON	10K	5%	1/6W	
R102	1-247-879-00	CARBON	100K	5%	1/6W	
R103	1-247-811-00	CARBON	150	5%	1/6W	
R104	1-247-843-00	CARBON	3.3K	5%	1/6W	
R105	1-247-811-00	CARBON	150	5%	1/6W	
R106	1-247-879-00	CARBON	100K	5%	1/6W	
R107	1-247-863-00	CARBON	22K	5%	1/6W	
R108	1-247-822-00	CARBON	430	5%	1/6W	
R109	1-247-855-00	CARBON	10K	5%	1/6W	
R110	1-247-859-00	CARBON	15K	5%	1/6W	
R111	1-247-859-00	CARBON	15K	5%	1/6W	
R112	1-247-852-00	CARBON	7.5K	5%	1/6W	
R113	1-247-857-00	CARBON	12K	5%	1/6W	
R114	1-247-855-00	CARBON	10K	5%	1/6W	
R115	1-247-879-00	CARBON	100K	5%	1/6W	
R116	1-247-855-00	CARBON	10K	5%	1/6W	
R117	1-247-865-00	CARBON	27K	5%	1/6W	
R118	1-247-855-00	CARBON	10K	5%	1/6W	
R119	1-247-855-00	CARBON	10K	5%	1/6W	
R120	1-247-855-00	CARBON	10K	5%	1/6W	
R121	1-247-855-00	CARBON	10K	5%	1/6W	

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

AF-2

Ref.No.	Part No.	Description				Remark
R122	1-247-845-00	CARBON	3.9K	5%	1/6W	
R123	1-247-863-00	CARBON	22K	5%	1/6W	
R124	1-247-863-00	CARBON	22K	5%	1/6W	
R125	1-247-855-00	CARBON	10K	5%	1/6W	
R126	1-247-855-00	CARBON	10K	5%	1/6W	
R127	1-247-855-00	CARBON	10K	5%	1/6W	
R128	1-247-855-00	CARBON	10K	5%	1/6W	
R129	1-247-855-00	CARBON	10K	5%	1/6W	
R130	1-247-813-00	CARBON	180	5%	1/6W	
R131	1-247-873-00	CARBON	56K	5%	1/6W	
R132	1-247-815-00	CARBON	220	5%	1/6W	
R133	1-247-839-00	CARBON	2.2K	5%	1/6W	
R134	1-247-863-00	CARBON	22K	5%	1/6W	
R135	1-247-831-00	CARBON	1K	5%	1/6W	
R136	1-247-855-00	CARBON	10K	5%	1/6W	
R138	1-247-863-00	CARBON	22K	5%	1/6W	
R139	1-247-863-00	CARBON	22K	5%	1/6W	
R140	1-247-840-00	CARBON	2.4K	5%	1/6W	
R141	1-247-879-00	CARBON	100K	5%	1/6W	
R142	1-247-825-00	CARBON	560	5%	1/6W	
R143	1-247-832-00	CARBON	1.1K	5%	1/6W	
R144	1-247-849-00	CARBON	5.6K	5%	1/6W	
R145	1-247-831-00	CARBON	1K	5%	1/6W	
R146	1-247-831-00	CARBON	1K	5%	1/6W	
R147	1-247-831-00	CARBON	1K	5%	1/6W	
R148	1-247-836-00	CARBON	1.6K	5%	1/6W	
R149	1-247-875-00	CARBON	68K	5%	1/6W	
R150	1-247-855-00	CARBON	10K	5%	1/6W	
R151	1-247-849-00	CARBON	5.6K	5%	1/6W	
R152	1-247-847-00	CARBON	4.7K	5%	1/6W	
R153	1-247-847-00	CARBON	4.7K	5%	1/6W	
R154	1-247-859-00	CARBON	15K	5%	1/6W	
R155	1-247-837-00	CARBON	1.8K	5%	1/6W	
R156	1-247-850-00	CARBON	6.2K	5%	1/6W	
R157	1-247-807-00	CARBON	100	5%	1/6W	
R158	1-247-850-00	CARBON	6.2K	5%	1/6W	
R159	1-247-859-00	CARBON	15K	5%	1/6W	
R160	1-247-827-00	CARBON	680	5%	1/6W	
R161	1-247-823-00	CARBON	470	5%	1/6W	
R162	1-247-831-00	CARBON	1K	5%	1/6W	
R163	1-247-887-00	CARBON	220K	5%	1/6W	
R164	1-247-811-00	CARBON	150	5%	1/6W	
R165	1-247-811-00	CARBON	150	5%	1/6W	
R201	1-247-855-00	CARBON	10K	5%	1/6W	
R202	1-247-879-00	CARBON	100K	5%	1/6W	
R203	1-247-811-00	CARBON	150	5%	1/6W	
R204	1-247-843-00	CARBON	3.3K	5%	1/6W	
R205	1-247-811-00	CARBON	150	5%	1/6W	
R206	1-247-879-00	CARBON	100K	5%	1/6W	
R207	1-247-863-00	CARBON	22K	5%	1/6W	
R208	1-247-822-00	CARBON	430	5%	1/6W	
R209	1-247-855-00	CARBON	10K	5%	1/6W	
R210	1-247-859-00	CARBON	15K	5%	1/6W	

Ref.No.	Part No.	Description				Remark
R211	1-247-859-00	CARBON	15K	5%	1/6W	
R212	1-247-852-00	CARBON	7.5K	5%	1/6W	
R213	1-247-857-00	CARBON	12K	5%	1/6W	
R214	1-247-855-00	CARBON	10K	5%	1/6W	
R215	1-247-879-00	CARBON	100K	5%	1/6W	
R216	1-247-855-00	CARBON	10K	5%	1/6W	
R217	1-247-865-00	CARBON	27K	5%	1/6W	
R218	1-247-855-00	CARBON	10K	5%	1/6W	
R219	1-247-855-00	CARBON	10K	5%	1/6W	
R220	1-247-855-00	CARBON	10K	5%	1/6W	
R221	1-247-855-00	CARBON	10K	5%	1/6W	
R222	1-247-845-00	CARBON	3.9K	5%	1/6W	
R223	1-247-863-00	CARBON	22K	5%	1/6W	
R224	1-247-863-00	CARBON	22K	5%	1/6W	
R225	1-247-855-00	CARBON	10K	5%	1/6W	
R226	1-247-855-00	CARBON	10K	5%	1/6W	
R227	1-247-855-00	CARBON	10K	5%	1/6W	
R228	1-247-855-00	CARBON	10K	5%	1/6W	
R229	1-247-855-00	CARBON	10K	5%	1/6W	
R230	1-247-813-00	CARBON	180	5%	1/6W	
R231	1-247-873-00	CARBON	56K	5%	1/6W	
R232	1-247-815-00	CARBON	220	5%	1/6W	
R233	1-247-839-00	CARBON	2.2K	5%	1/6W	
R234	1-247-863-00	CARBON	22K	5%	1/6W	
R235	1-247-831-00	CARBON	1K	5%	1/6W	
R236	1-247-861-00	CARBON	18K	5%	1/6W	
R238	1-247-863-00	CARBON	22K	5%	1/6W	
R239	1-247-863-00	CARBON	22K	5%	1/6W	
R240	1-247-840-00	CARBON	2.4K	5%	1/6W	
R241	1-247-879-00	CARBON	100K	5%	1/6W	
R242	1-247-825-00	CARBON	560	5%	1/6W	
R243	1-247-832-00	CARBON	1.1K	5%	1/6W	
R244	1-247-849-00	CARBON	5.6K	5%	1/6W	
R245	1-247-831-00	CARBON	1K	5%	1/6W	
R246	1-247-831-00	CARBON	1K	5%	1/6W	
R247	1-247-831-00	CARBON	1K	5%	1/6W	
R248	1-247-836-00	CARBON	1.6K	5%	1/6W	
R249	1-247-875-00	CARBON	68K	5%	1/6W	
R250	1-247-855-00	CARBON	10K	5%	1/6W	
R251	1-247-849-00	CARBON	5.6K	5%	1/6W	
R252	1-247-847-00	CARBON	4.7K	5%	1/6W	
R253	1-247-847-00	CARBON	4.7K	5%	1/6W	
R254	1-247-859-00	CARBON	15K	5%	1/6W	
R255	1-247-831-00	CARBON	1K	5%	1/6W	
R256	1-247-850-00	CARBON	6.2K	5%	1/6W	
R257	1-247-807-00	CARBON	100	5%	1/6W	
R258	1-247-852-00	CARBON	7.5K	5%	1/6W	
R259	1-247-859-00	CARBON	15K	5%	1/6W	
R260	1-247-827-00	CARBON	680	5%	1/6W	
R261	1-247-823-00	CARBON	470	5%	1/6W	
R262	1-247-831-00	CARBON	1K	5%	1/6W	
R263	1-247-887-00	CARBON	220K	5%	1/6W	
R264	1-247-811-00	CARBON	150	5%	1/6W	

Ref.No.	Part No.	Description				Remark
R265	1-247-811-00	CARBON	150	5%	1/6W	
R270	1-247-824-00	CARBON	510	5%	1/6W	
		VARIABLE RESISTOR				
RV001	1-228-744-00	RES, ADJ, CARBON 47Ω				
RV002	1-228-748-00	RES, ADJ, CARBON 10K				
RV101	1-228-749-00	RES, ADJ, CARBON 22K				
RV102	1-228-748-00	RES, ADJ, CARBON 10K				
RV103	1-228-748-00	RES, ADJ, CARBON 10K				
RV104	1-228-748-00	RES, ADJ, CARBON 10K				
RV105	1-228-746-00	RES, ADJ, CARBON 2.2K				
RV106	1-228-749-00	RES, ADJ, CARBON 22K				
RV201	1-228-749-00	RES, ADJ, CARBON 22K				
RV202	1-228-748-00	RES, ADJ, CARBON 10K				
RV203	1-228-748-00	RES, ADJ, CARBON 10K				
RV204	1-228-748-00	RES, ADJ, CARBON 10K				
RV205	1-228-746-00	RES, ADJ, CARBON 2.2K				
RV206	1-228-749-00	RES, ADJ, CARBON 22K				
		TRANSFORMER				
T001	1-235-208-00	FILTER, LOW PASS				
T101	1-235-218-00	FILTER, LOW PASS				
T102	1-235-260-00	FILTER, BAND PASS				
T103	1-235-264-00	FILTER, BAND PASS				
T201	1-235-218-00	FILTER, LOW PASS				
T202	1-235-262-00	FILTER, BAND PASS				
T203	1-235-265-00	FILTER, BAND PASS				
		CRYSTAL				
X001	1-567-137-00	VIBRATOR, CRYSTAL				
X002	1-567-138-00	VIBRATOR, CRYSTAL				
**********						
★	A-6713-177-A	AU-5 BOARD, COMPLETE				
		**********				
★	3-682-108-00	CASE (1), AU SHIELD				
★	3-682-109-00	LID, UPPER, AU SHIELD CASE (1)				
★	3-682-110-00	LID, REAR, AU SHIELD CASE (1)				
★	3-682-111-00	CASE (2), AU SHIELD				
★	3-682-112-00	LID, UPPER, AU SHIELD CASE (2)				
★	3-682-113-00	LID, REAR, AU SHIELD CASE (2)				
	8-729-378-84	TRANSISTOR 2SD788-3				
		CAPACITOR				
C001	1-102-111-00	CERAMIC	270PF	10%	50V	
C002	1-130-471-00	MYLAR	0.001MF	5%	50V	
C003	1-123-356-00	ELECT	10MF	20%	16V	
C004	1-123-333-00	ELECT	100MF	20%	16V	
C005	1-123-356-00	ELECT	10MF	20%	16V	
C006	1-123-354-00	ELECT	3.3MF	20%	50V	
C007	1-123-356-00	ELECT	10MF	20%	16V	
C008	1-123-356-00	ELECT	10MF	20%	16V	
C009	1-130-495-00	MYLAR	0.1MF	5%	50V	

Ref.No.	Part No.	Description			Remark
C010	1-130-483-00	MYLAR	0.01MF	5%	50V
C011	1-130-484-00	MYLAR	0.012MF	5%	50V
C012	1-123-330-00	ELECT	22MF	20%	16V
C013	1-123-295-00	ELECT	100MF	20%	6.3V
C014	1-123-380-00	ELECT	1MF	20%	50V
C015	1-108-558-00	MYLAR	0.0013MF	5%	50V
C016	1-130-471-00	MYLAR	0.001MF	5%	50V
C017	1-123-317-00	ELECT	22MF	20%	16V
C018	1-123-328-00	ELECT	4.7MF	20%	25V
C019	1-130-485-00	MYLAR	0.015MF	5%	50V
C020	1-123-356-00	ELECT	10MF	20%	16V
C021	1-123-356-00	ELECT	10MF	20%	16V
C022	1-123-333-00	ELECT	100MF	20%	16V
C023	1-107-163-00	MICA	47PF	5%	500V
C024	1-130-923-00	FILM	0.0047MF	10%	400V
C025	1-130-479-00	MYLAR	0.0047MF	5%	50V
C026	1-130-477-00	MYLAR	0.0033MF	5%	50V
C027	1-123-332-00	ELECT	47MF	20%	16V
C028	1-123-356-00	ELECT	10MF	20%	16V
C029	1-130-489-00	MYLAR	0.033MF	5%	50V
C030	1-130-484-00	MYLAR	0.012MF	5%	50V
C031	1-123-356-00	ELECT	10MF	20%	16V
C032	1-123-356-00	ELECT	10MF	20%	16V
C033	1-123-356-00	ELECT	10MF	20%	16V
C034	1-130-479-00	MYLAR	0.0047MF	5%	50V
C035	1-130-471-00	MYLAR	0.001MF	5%	50V
C036	1-123-381-00	ELECT	2.2MF	20%	50V
C038	1-123-330-00	ELECT	22MF	20%	16V
C039	1-130-475-00	MYLAR	0.0022MF	5%	50V
C042	1-123-307-00	ELECT	100MF	20%	10V
C043	1-123-352-00	ELECT	1MF	20%	50V
C101	1-123-380-00	ELECT	1MF	20%	50V
C102	1-101-888-00	CERAMIC	68PF	5%	50V
C103	1-123-328-00	ELECT	4.7MF	20%	25V
C104	1-123-380-00	ELECT	1MF	20%	50V
C105	1-101-888-00	CERAMIC	68PF	5%	50V
C106	1-123-328-00	ELECT	4.7MF	20%	25V
C108	1-123-356-00	ELECT	10MF	20%	16V
C109	1-123-356-00	ELECT	10MF	20%	16V
C110	1-123-328-00	ELECT	4.7MF	20%	25V
C111	1-123-328-00	ELECT	4.7MF	20%	25V
C112	1-123-380-00	ELECT	1MF	20%	50V
C113	1-123-380-00	ELECT	1MF	20%	50V
C118	1-123-306-00	ELECT	47MF	20%	10V
C119	1-123-306-00	ELECT	47MF	20%	10V
C122	1-123-332-00	ELECT	47MF	20%	16V
C123	1-123-332-00	ELECT	47MF	20%	16V
C124	1-123-356-00	ELECT	10MF	20%	16V
C125	1-123-356-00	ELECT	10MF	20%	16V
C126	1-102-117-00	CERAMIC	820PF	10%	50V
C127	1-102-117-00	CERAMIC	820PF	10%	50V
C128	1-102-074-00	CERAMIC	0.001MF	10%	50V
C203	1-123-294-00	ELECT	47MF	20%	6.3V
C204	1-123-294-00	ELECT	47MF	20%	6.3V
C205	1-123-294-00	ELECT	47MF	20%	6.3V

Ref.No.	Part No.	Description				Remark
C206	1-123-294-00	ELECT	47MF	20%	6.3V	
C207	1-123-332-00	ELECT	47MF	20%	16V	
C208	1-123-332-00	ELECT	47MF	20%	16V	
C209	1-123-356-00	ELECT	10MF	20%	16V	
C210	1-123-356-00	ELECT	10MF	20%	16V	
C211	1-123-294-00	ELECT	47MF	20%	6.3V	
C212	1-123-294-00	ELECT	47MF	20%	6.3V	
C213	1-123-380-00	ELECT	1MF	20%	50V	
C214	1-123-332-00	ELECT	47MF	20%	16V	
C215	1-123-328-00	ELECT	4.7MF	20%	25V	
C216	1-123-328-00	ELECT	4.7MF	20%	25V	
C217	1-123-328-00	ELECT	4.7MF	20%	25V	
C218	1-123-328-00	ELECT	4.7MF	20%	25V	
C219	1-123-356-00	ELECT	10MF	20%	16V	
C220	1-123-318-00	ELECT	33MF	20%	16V	
C221	1-123-317-00	ELECT	22MF	20%	16V	
C301	1-123-332-00	ELECT	47MF	20%	16V	
C302	1-123-356-00	ELECT	10MF	20%	16V	
C303	1-123-356-00	ELECT	10MF	20%	16V	
C304	1-123-332-00	ELECT	47MF	20%	16V	
C305	1-123-332-00	ELECT	47MF	20%	16V	
C306	1-123-356-00	ELECT	10MF	20%	16V	
C307	1-123-356-00	ELECT	10MF	20%	16V	
C308	1-123-332-00	ELECT	47MF	20%	16V	
C309	1-123-332-00	ELECT	47MF	20%	16V	
C310	1-123-356-00	ELECT	10MF	20%	16V	
C701	1-123-333-00	ELECT	100MF	20%	16V	
C702	1-161-059-00	CERAMIC	0.047MF	10%	50V	
C706	1-123-333-00	ELECT	100MF	20%	16V	
C707	1-161-059-00	CERAMIC	0.047MF	10%	50V	
C708	1-161-059-00	CERAMIC	0.047MF	10%	50V	

CONNECTOR

CN271⚠	1-564-005-00	PIN, CONNECTOR 6P
CN272⚠	1-560-891-00	PIN, CONNECTOR 3P
CN273⚠	1-564-003-41	PIN, CONNECTOR 4P
CN275⚠	1-564-001-11	PIN, CONNECTOR 2P
CN276⚠	1-564-002-00	PIN, CONNECTOR 3P
CN277⚠	1-564-003-00	PIN, CONNECTOR 4P
CN278⚠	1-560-466-00	PIN, CONNECTOR 3P
CN301⚠	1-560-894-00	PIN, CONNECTOR 6P
CN302⚠	1-560-898-00	PIN, CONNECTOR 10P
CN303⚠	1-564-007-00	PIN, CONNECTOR 8P
CN304⚠	1-564-004-00	PIN, CONNECTOR 5P
CN305⚠	1-564-006-21	PIN, CONNECTOR 7P
CN306⚠	1-560-898-00	PIN, CONNECTOR 10P
CN307⚠	1-560-892-00	PIN, CONNECTOR 4P
CN308⚠	1-560-891-00	PIN, CONNECTOR 3P
CN309⚠	1-564-003-00	PIN, CONNECTOR 4P
CN310⚠	1-560-895-00	PIN, CONNECTOR 7P
CN311⚠	1-560-891-00	PIN, CONNECTOR 3P
CN312⚠	1-560-891-00	PIN, CONNECTOR 3P
CN313⚠	1-560-894-00	PIN, CONNECTOR 6P

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description	Remark
		DIODE	
D001	8-719-911-19	DIODE 1SS119	
D002	8-719-911-19	DIODE 1SS119	
D003	8-719-911-19	DIODE 1SS119	
D101	8-719-156-07	DIODE RD5.6E-B	
D201	8-719-911-19	DIODE 1SS119	
D202	8-719-911-19	DIODE 1SS119	
D203	8-719-911-19	DIODE 1SS119	
D204	8-719-911-19	DIODE 1SS119	
D205	8-719-911-19	DIODE 1SS119	
D206	8-719-911-19	DIODE 1SS119	
D301	8-719-100-57	DIODE RD10E-B2	
D303	8-719-911-19	DIODE 1SS119	
D304	8-719-100-60	DIODE RD11E-B1	
D701	8-719-200-02	DIODE 10E2	
D703	8-719-911-19	DIODE 1SS119	
D704	8-719-911-19	DIODE 1SS119	
D705	8-719-911-19	DIODE 1SS119	
		FILTER	
FL101	1-235-292-00	FILTER, LOW PASS	
FL102	1-235-292-00	FILTER, LOW PASS	
		IC	
IC001	8-759-800-79	IC LA7048	
IC101	8-759-240-53	IC TC4053BP	
IC102	8-759-145-58	IC UPC4558C	
IC103	8-759-900-70	IC MB3110	
IC104	8-759-145-58	IC UPC4558C	
IC105	8-759-145-58	IC UPC4558C	
IC106	8-759-240-53	IC TC4053BP	
IC201	8-759-240-53	IC TC4053BP	
IC202	8-759-145-58	IC UPC4558C	
IC203	8-759-240-52	IC TC4052BP	
IC204	8-759-145-58	IC UPC4558C	
IC205	8-759-900-70	IC MB3110	
IC206	8-759-961-38	IC BA6138	
IC701⚠	8-759-600-24	IC M54843L	
IC702	8-743-983-00	IC BX3983	
		COIL	
L001	1-459-351-00	COIL (WITH CORE)	
L002	1-407-713-00	MICRO INDUCTOR 470UH	
		VARIABLE COIL	
LV001	1-408-523-00	COIL, VARIABLE	
LV002	1-408-713-00	VARIABLE INDUCTOR	
		TRANSISTOR	
Q001	=8-729-245-83	TRANSISTOR 2SC2458	
Q002	=8-729-245-83	TRANSISTOR 2SC2458	
Q003	=8-729-245-83	TRANSISTOR 2SC2458	
Q004	8-729-194-57	TRANSISTOR 2SC945-P	
Q005	8-729-194-57	TRANSISTOR 2SC945-P	
Q006	8-729-967-32	TRANSISTOR 2SC2673	

Ref.No.	Part No.	Description	Remark
Q007	8-729-177-32	TRANSISTOR 2SD773	
Q008	8-729-113-33	TRANSISTOR 2SB733-4	
Q009	=>8-729-245-83	TRANSISTOR 2SC2458	
Q010	=>8-729-245-83	TRANSISTOR 2SC2458	
Q011	8-729-900-33	TRANSISTOR DTC144EF	
Q012	8-729-900-39	TRANSISTOR DTA124EF	
Q013	8-729-900-33	TRANSISTOR DTC144EF	
Q014	8-729-900-39	TRANSISTOR DTA124EF	
Q015	8-729-900-39	TRANSISTOR DTA124EF	
Q016	8-729-900-37	TRANSISTOR DTC124EF	
Q017	=>8-729-245-83	TRANSISTOR 2SC2458	
Q022	=>8-729-245-83	TRANSISTOR 2SC2458	
Q101	=>8-729-245-83	TRANSISTOR 2SC2458	
Q102	=>8-729-245-83	TRANSISTOR 2SC2458	
Q203	8-729-900-33	TRANSISTOR DTC144EF	
Q204	8-729-900-33	TRANSISTOR DTC144EF	
Q205	8-729-900-39	TRANSISTOR DTA124EF	
Q206	8-729-900-37	TRANSISTOR DTC124EF	
Q207	8-729-900-39	TRANSISTOR DTA124EF	
Q208	=>8-729-245-83	TRANSISTOR 2SC2458	
Q209	=>8-729-245-83	TRANSISTOR 2SC2458	
Q301	8-729-113-33	TRANSISTOR 2SB733-4	
Q302	8-729-177-32	TRANSISTOR 2SD773	
Q303	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q304	8-729-113-33	TRANSISTOR 2SB733-4	
Q701	=>8-729-245-83	TRANSISTOR 2SC2458	
Q702	=>8-729-245-83	TRANSISTOR 2SC2458	
Q703	8-729-900-33	TRANSISTOR DTC144EF	
Q704	=>8-729-177-32	TRANSISTOR 2SD773	
Q705	=>8-729-245-83	TRANSISTOR 2SC2458	
Q706	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q707	=>8-729-245-83	TRANSISTOR 2SC2458	
Q708	=>8-729-245-83	TRANSISTOR 2SC2458	
Q709	8-729-900-33	TRANSISTOR DTC144EF	
Q710	8-729-900-33	TRANSISTOR DTC144EF	
Q711	=>8-729-245-83	TRANSISTOR 2SC2458	
Q712	8-729-900-33	TRANSISTOR DTC144EF	
Q714	8-729-900-30	TRANSISTOR DTA144EF	
Q715	8-729-900-30	TRANSISTOR DTA144EF	
Q716	8-729-900-33	TRANSISTOR DTC144EF	
Q717	8-729-900-33	TRANSISTOR DTC144EF	
Q718	=>8-729-245-83	TRANSISTOR 2SC2458	
Q719	8-729-900-33	TRANSISTOR DTC144EF	
Q723	⚠8-729-177-32	TRANSISTOR 2SD773	
Q728	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q729	8-729-900-33	TRANSISTOR DTC144EF	

RESISTOR

R001	1-247-857-00	CARBON	12K	5%	1/6W
R002	1-247-847-00	CARBON	4.7K	5%	1/6W
R003	1-247-867-00	CARBON	33K	5%	1/6W
R004	1-247-831-00	CARBON	1K	5%	1/6W
R005	1-247-895-00	CARBON	470K	5%	1/6W
R006	1-247-859-00	CARBON	15K	5%	1/6W
R007	1-247-855-00	CARBON	10K	5%	1/6W
R008	1-247-855-00	CARBON	10K	5%	1/6W
R009	1-247-819-00	CARBON	330	5%	1/6W
R010	1-247-867-00	CARBON	33K	5%	1/6W
R011	1-202-465-00	SOLID	2.7M	5%	1/4W
R013	1-247-867-00	CARBON	33K	5%	1/6W
R014	1-247-855-00	CARBON	10K	5%	1/6W
R015	1-247-783-00	CARBON	10	5%	1/6W
R016	1-247-859-00	CARBON	15K	5%	1/6W
R018	1-247-875-00	CARBON	68K	5%	1/6W
R019	1-247-787-00	CARBON	15	5%	1/6W
R020	1-247-883-00	CARBON	150K	5%	1/6W
R021	1-247-853-00	CARBON	8.2K	5%	1/6W
R022	1-247-783-00	CARBON	10	5%	1/6W
R023	1-247-855-00	CARBON	10K	5%	1/6W
R024	1-247-817-00	CARBON	270	5%	1/6W
R025	1-247-847-00	CARBON	4.7K	5%	1/6W
R026	1-247-903-00	CARBON	1M	5%	1/6W
R027	1-247-839-00	CARBON	2.2K	5%	1/6W
R028	1-247-839-00	CARBON	2.2K	5%	1/6W
R029	1-247-863-00	CARBON	22K	5%	1/6W
R030	1-247-859-00	CARBON	15K	5%	1/6W
R031	1-246-900-00	CARBON	3.3	5%	1/8W F
R032	1-247-841-00	CARBON	2.7K	5%	1/6W
R033	1-247-825-00	CARBON	560	5%	1/6W
R034	1-247-855-00	CARBON	10K	5%	1/6W
R035	1-247-847-00	CARBON	4.7K	5%	1/6W
R036	1-247-831-00	CARBON	1K	5%	1/6W
R037	1-247-867-00	CARBON	33K	5%	1/6W
R038	1-247-867-00	CARBON	33K	5%	1/6W
R039	1-247-859-00	CARBON	15K	5%	1/6W
R040	1-247-863-00	CARBON	22K	5%	1/6W
R042	1-247-863-00	CARBON	22K	5%	1/6W
R052	1-247-839-00	CARBON	2.2K	5%	1/6W
R053	1-247-856-00	CARBON	11K	5%	1/6W
R054	1-247-842-00	CARBON	3K	5%	1/6W
R055	1-247-855-00	CARBON	10K	5%	1/6W
R056	1-247-845-00	CARBON	3.9K	5%	1/6W
R057	1-247-855-00	CARBON	10K	5%	1/6W
R058	1-247-857-00	CARBON	12K	5%	1/6W
R059	1-247-812-00	CARBON	160	5%	1/6W
R061	1-247-843-00	CARBON	3.3K	5%	1/6W
R064	1-247-855-00	CARBON	10K	5%	1/6W
R065	1-247-887-00	CARBON	220K	5%	1/6W
R066	1-247-887-00	CARBON	220K	5%	1/6W
R073	1-247-861-00	CARBON	18K	5%	1/6W
R074	1-247-867-00	CARBON	33K	5%	1/6W
R075	1-247-863-00	CARBON	22K	5%	1/6W
R077	1-247-859-00	CARBON	15K	5%	1/6W
R101	1-247-887-00	CARBON	220K	5%	1/6W
R102	1-247-871-00	CARBON	47K	5%	1/6W
R103	1-247-863-00	CARBON	22K	5%	1/6W
R104	1-247-855-00	CARBON	10K	5%	1/6W

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

AU-5

Ref.No.	Part No.	Description				Remark
R105	1-247-879-00	CARBON	100K	5%	1/6W	
R106	1-247-887-00	CARBON	220K	5%	1/6W	
R107	1-247-871-00	CARBON	47K	5%	1/6W	
R108	1-247-863-00	CARBON	22K	5%	1/6W	
R109	1-247-855-00	CARBON	10K	5%	1/6W	
R110	1-247-879-00	CARBON	100K	5%	1/6W	
R111	1-247-871-00	CARBON	47K	5%	1/6W	
R112	1-247-871-00	CARBON	47K	5%	1/6W	
R113	1-247-864-00	CARBON	24K	5%	1/6W	
R114	1-247-859-00	CARBON	15K	5%	1/6W	
R115	1-247-875-00	CARBON	68K	5%	1/6W	
R116	1-247-871-00	CARBON	47K	5%	1/6W	
R117	1-247-867-00	CARBON	33K	5%	1/6W	
R118	1-247-867-00	CARBON	33K	5%	1/6W	
R119	1-247-871-00	CARBON	47K	5%	1/6W	
R120	1-247-871-00	CARBON	47K	5%	1/6W	
R121	1-247-871-00	CARBON	47K	5%	1/6W	
R122	1-247-853-00	CARBON	8.2K	5%	1/6W	
R123	1-247-853-00	CARBON	8.2K	5%	1/6W	
R124	1-247-859-00	CARBON	15K	5%	1/6W	
R125	1-247-859-00	CARBON	15K	5%	1/6W	
R126	1-247-854-00	CARBON	9.1K	5%	1/6W	
R127	1-247-854-00	CARBON	9.1K	5%	1/6W	
R128	1-247-845-00	CARBON	3.9K	5%	1/6W	
R129	1-247-871-00	CARBON	47K	5%	1/6W	
R130	1-247-871-00	CARBON	47K	5%	1/6W	
R131	1-247-850-00	CARBON	6.2K	5%	1/6W	
R132	1-247-849-00	CARBON	5.6K	5%	1/6W	
R133	1-247-827-00	CARBON	680	5%	1/6W	
R134	1-247-849-00	CARBON	5.6K	5%	1/6W	
R135	1-247-827-00	CARBON	680	5%	1/6W	
R136	1-247-850-00	CARBON	6.2K	5%	1/6W	
R137	1-247-850-00	CARBON	6.2K	5%	1/6W	
R142	1-247-791-00	CARBON	22	5%	1/6W	
R143	1-247-791-00	CARBON	22	5%	1/6W	
R144	1-247-850-00	CARBON	6.2K	5%	1/6W	
R145	1-247-871-00	CARBON	47K	5%	1/6W	
R146	1-247-862-00	CARBON	20K	5%	1/6W	
R147	1-247-862-00	CARBON	20K	5%	1/6W	
R148	1-247-871-00	CARBON	47K	5%	1/6W	
R150	1-247-839-00	CARBON	2.2K	5%	1/6W	
R151	1-247-850-00	CARBON	6.2K	5%	1/6W	
R202	1-247-871-00	CARBON	47K	5%	1/6W	
R203	1-247-854-00	CARBON	9.1K	5%	1/6W	
R204	1-247-871-00	CARBON	47K	5%	1/6W	
R205	1-247-867-00	CARBON	33K	5%	1/6W	
R206	1-247-867-00	CARBON	33K	5%	1/6W	
R207	1-247-867-00	CARBON	33K	5%	1/6W	
R208	1-247-879-00	CARBON	100K	5%	1/6W	
R209	1-247-863-00	CARBON	22K	5%	1/6W	
R210	1-247-867-00	CARBON	33K	5%	1/6W	
R211	1-247-867-00	CARBON	33K	5%	1/6W	
R212	1-247-867-00	CARBON	33K	5%	1/6W	
R213	1-247-791-00	CARBON	22	5%	1/6W	
R214	1-247-791-00	CARBON	22	5%	1/6W	
R215	1-247-858-00	CARBON	13K	5%	1/6W	
R216	1-247-879-00	CARBON	100K	5%	1/6W	
R217	1-247-867-00	CARBON	33K	5%	1/6W	
R218	1-247-867-00	CARBON	33K	5%	1/6W	
R219	1-247-858-00	CARBON	13K	5%	1/6W	
R220	1-247-879-00	CARBON	100K	5%	1/6W	
R221	1-247-871-00	CARBON	47K	5%	1/6W	
R222	1-247-871-00	CARBON	47K	5%	1/6W	
R223	1-247-870-00	CARBON	43K	5%	1/6W	
R224	1-247-859-00	CARBON	15K	5%	1/6W	
R225	1-247-859-00	CARBON	15K	5%	1/6W	
R226	1-247-879-00	CARBON	100K	5%	1/6W	
R227	1-247-801-00	CARBON	56	5%	1/6W	
R228	1-247-801-00	CARBON	56	5%	1/6W	
R229	1-247-879-00	CARBON	100K	5%	1/6W	
R230	1-247-867-00	CARBON	33K	5%	1/6W	
R231	1-247-867-00	CARBON	33K	5%	1/6W	
R232	1-247-839-00	CARBON	2.2K	5%	1/6W	
R233	1-247-839-00	CARBON	2.2K	5%	1/6W	
R234	1-247-791-00	CARBON	22	5%	1/6W	
R235	1-247-837-00	CARBON	1.8K	5%	1/6W	
R236	1-247-837-00	CARBON	1.8K	5%	1/6W	
R237	1-247-891-00	CARBON	330K	5%	1/6W	
R238	1-247-891-00	CARBON	330K	5%	1/6W	
R239	1-247-870-00	CARBON	43K	5%	1/6W	
R240	1-247-849-00	CARBON	5.6K	5%	1/6W	
R241	1-247-849-00	CARBON	5.6K	5%	1/6W	
R242	1-247-871-00	CARBON	47K	5%	1/6W	
R243	1-247-871-00	CARBON	47K	5%	1/6W	
R246	1-247-843-00	CARBON	3.3K	5%	1/6W	
R247	1-247-863-00	CARBON	22K	5%	1/6W	
R248	1-247-863-00	CARBON	22K	5%	1/6W	
R249	1-247-855-00	CARBON	10K	5%	1/6W	
R250	1-247-879-00	CARBON	100K	5%	1/6W	
R251	1-247-855-00	CARBON	10K	5%	1/6W	
R252	1-247-879-00	CARBON	100K	5%	1/6W	
R253	1-247-858-00	CARBON	13K	5%	1/6W	
R254	1-247-858-00	CARBON	13K	5%	1/6W	
R255	1-247-831-00	CARBON	1K	5%	1/6W	
R258	1-247-841-00	CARBON	2.7K	5%	1/6W	
R259	1-247-831-00	CARBON	1K	5%	1/6W	
R260	1-247-831-00	CARBON	1K	5%	1/6W	
R261	1-247-845-00	CARBON	3.9K	5%	1/6W	
R262	1-247-845-00	CARBON	3.9K	5%	1/6W	
R263	1-247-879-00	CARBON	100K	5%	1/6W	
R264	1-247-863-00	CARBON	22K	5%	1/6W	
R267	1-247-867-00	CARBON	33K	5%	1/6W	
R268	1-247-807-00	CARBON	100	5%	1/6W	
R269	1-247-807-00	CARBON	100	5%	1/6W	
R301	⚠1-245-990-00	CARBON	3.3	5%	1/8W	F
R302	1-247-839-00	CARBON	2.2K	5%	1/6W	
R303	1-247-829-00	CARBON	820	5%	1/6W	
R304	1-247-807-00	CARBON	100	5%	1/6W	

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description				Remark
R305	1-247-835-00	CARBON	1.5K	5%	1/6W	
R306	1-247-839-00	CARBON	2.2K	5%	1/6W	
R307	1-247-831-00	CARBON	1K	5%	1/6W	
R308	1-247-843-00	CARBON	3.3K	5%	1/6W	
R309	⚠1-246-980-00	CARBON	3.3	5%	1/8W	F
R310	1-247-838-00	CARBON	2K	5%	1/6W	
R311	⚠1-246-980-00	CARBON	3.3	5%	1/8W	F
R312	1-247-847-00	CARBON	4.7K	5%	1/6W	
R701	⚠1-246-981-00	CARBON	4.7	5%	1/8W	F
R702	⚠1-212-366-00	METAL OXIDE	3.3	5%	1W	F
R703	1-247-807-00	CARBON	10Ω	5%	1/6W	
R704	1-247-871-00	CARBON	47K	5%	1/6W	
R705	1-247-831-00	CARBON	1K	5%	1/6W	
R706	1-247-871-00	CARBON	47K	5%	1/6W	
R707	1-247-879-00	CARBON	100K	5%	1/6W	
R710	1-247-879-00	CARBON	100K	5%	1/6W	
R711	1-247-819-00	CARBON	330	5%	1/6W	
R712	1-247-831-00	CARBON	1K	5%	1/6W	
R713	1-247-815-00	CARBON	220	5%	1/6W	
R714	1-247-859-00	CARBON	15K	5%	1/6W	
R715	1-247-839-00	CARBON	2.2K	5%	1/6W	
R716	1-247-864-00	CARBON	24K	5%	1/6W	
R717	1-247-826-00	CARBON	620	5%	1/6W	
R718	1-247-819-00	CARBON	330	5%	1/6W	
R722	1-247-843-00	CARBON	3.3K	5%	1/6W	
R723	1-212-360-00	METAL OXIDE	1	5%	1W	F
R724	1-247-864-00	CARBON	24K	5%	1/6W	
R725	1-247-854-00	CARBON	9.1K	5%	1/6W	
R726	1-247-873-00	CARBON	56K	5%	1/6W	
R727	1-247-867-00	CARBON	33K	5%	1/6W	
R728	1-247-855-00	CARBON	10K	5%	1/6W	
R741	1-247-855-00	CARBON	10K	5%	1/6W	
R742	1-247-879-00	CARBON	100K	5%	1/6W	
R744	1-247-849-00	CARBON	5.6K	5%	1/6W	
R751	1-247-831-00	CARBON	1K	5%	1/6W	
R752	⚠1-212-356-00	METAL OXIDE	0.47	5%	1W	F
R756	⚠1-246-981-00	CARBON	4.7	5%	1/8W	F
R761	1-247-848-00	CARBON	5.1K	5%	1/6W	
R762	1-247-869-00	CARBON	39K	5%	1/6W	
R763	1-247-831-00	CARBON	1K	5%	1/6W	

VARIABLE RESISTOR

RV001	1-228-740-00	RES, ADJ, CARBON	10K
RV002	1-228-744-00	RES, ADJ, CARBON	470
RV003	1-228-750-00	RES, ADJ, CARBON	47K
RV004	1-228-752-00	RES, ADJ, CARBON	220K
RV101	1-228-747-00	RES, ADJ, CARBON	4.7K
RV201	1-228-748-00	RES, ADJ, CARBON	10K
RV202	1-228-748-00	RES, ADJ, CARBON	10K
RV701	1-228-745-00	RES, ADJ, CARBON	1K
RV702	1-228-746-00	RES, ADJ, CARBON	2.2K

Ref.No.	Part No.	Description	Remark
		RELAY	
RY001	1-515-513-00	RELAY	
		TRANSFORMER	
T001	1-433-236-00	TRANSFORMER, OSCILLATOR	
		THERMISTOR	
TH101	1-800-202-XX	THERMISTOR S-10K	

****

⚠	A-6714-188-A	SS-19 BOARD, COMPLETE
		**********
⚠	3-682-606-00	CASE (MAIN), SHIELD, SS
⚠	3-682-607-00	CASE (LOWER), SHIELD, SS

CAPACITOR

C001	1-130-516-51	MYLAR	0.01MF	10%	50V
C002	1-161-021-00	CERAMIC	0.047MF	10%	25V
C003	1-123-613-00	ELECT	3.3MF	20%	50V
C004	1-123-296-00	ELECT	220MF	20%	6.3V
C005	1-123-613-00	ELECT	3.3MF	20%	50V
C006	1-130-524-51	MYLAR	0.047MF	10%	50V
C007	1-123-613-00	ELECT	3.3MF	20%	50V
C008	1-130-524-51	MYLAR	0.047MF	10%	50V
C009	1-130-516-51	MYLAR	0.01MF	10%	50V
C010	1-123-616-00	ELECT	4.7MF	20%	25V
C011	1-130-516-51	MYLAR	0.01MF	10%	50V
C012	1-161-013-00	CERAMIC	0.01MF	10%	25V
C013	1-130-526-51	MYLAR	0.068MF	10%	50V
C014	1-123-822-00	ELECT	47MF	20%	10V
C015	1-131-398-00	ELECT(SOLID)	0.22MF	10%	16V
C016	1-161-021-00	CERAMIC	0.047MF	10%	25V
C017	1-123-507-00	ELECT	0.1MF	20%	50V
C018	1-123-611-00	ELECT	1MF	20%	50V
C019	1-123-822-00	ELECT	47MF	20%	10V
C020	1-161-016-00	CERAMIC	0.018MF	10%	25V
C021	1-161-013-00	CERAMIC	0.01MF	10%	25V
C022	1-108-582-00	MYLAR	0.013MF	5%	50V
C023	1-161-042-00	CERAMIC	0.0018MF	10%	50V
C024	1-161-016-00	CERAMIC	0.018MF	10%	25V
C025	1-161-013-00	CERAMIC	0.01MF	10%	25V
C026	1-131-356-00	TANTALUM	3.3MF	10%	25V
C027	1-123-611-00	ELECT	1MF	20%	50V
C028	1-161-021-00	CERAMIC	0.047MF	10%	25V
C029	1-124-233-00	ELECT	10MF	20%	16V
C030	1-123-611-00	ELECT	1MF	20%	50V
C031	1-123-617-00	ELECT	10MF	20%	16V
C032	1-161-021-00	CERAMIC	0.047MF	10%	25V
C033	1-123-617-00	ELECT	10MF	20%	16V
C034	1-123-616-00	ELECT	4.7MF	20%	25V
C035	1-123-647-00	ELECT	47MF	20%	6.3V

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description				Remark
C036	1-123-617-00	ELECT	10MF	20%	16V	
C037	1-130-772-00	FILM	0.22MF	5%	63V	
C044	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C045	1-123-333-00	ELECT	100MF	20%	16V	
C046	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C047	1-102-978-00	CERAMIC	220PF	5%	50V	
C048	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C049	1-102-114-00	CERAMIC	470PF	10%	50V	
C050	1-123-820-00	ELECT	33MF	20%	16V	
C051	1-123-821-00	ELECT	47MF	20%	16V	
C052	1-123-821-00	ELECT	47MF	20%	16V	
C053	1-123-821-00	ELECT	47MF	20%	16V	
C054	1-123-612-00	ELECT	2.2MF	20%	50V	
C055	1-123-611-00	ELECT	1MF	20%	50V	
C056	1-130-516-51	MYLAR	0.01MF	10%	50V	
C057	1-127-434-00	ELECT(SOLID)	0.15MF	10%	16V	
C058	1-130-516-51	MYLAR	0.01MF	10%	50V	
C059	1-130-772-00	FILM	0.22MF	5%	63V	
C060	1-123-617-00	ELECT	10MF	20%	16V	
C061	1-123-611-00	ELECT	1MF	20%	50V	
C062	1-130-487-00	MYLAR	0.022MF	5%	50V	
C063	1-123-612-00	ELECT	2.2MF	20%	50V	
C064	1-123-661-00	ELECT	100MF	20%	6.3V	
C065	1-131-375-00	TANTALUM	4.7MF	10%	10V	
C066	1-131-375-00	TANTALUM	4.7MF	10%	10V	
C067	1-123-821-00	ELECT	47MF	20%	16V	
C068	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C069	1-130-772-00	FILM	0.22MF	5%	63V	
C070	1-130-768-00	FILM	0.1MF	5%	63V	
C071	1-130-494-00	MYLAR	0.082MF	5%	50V	
C080	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C081	1-131-371-00	TANTALUM	10MF	10%	16V	
C082	1-127-433-51	ELECT(SOLID)	0.1MF	10%	16V	
C083	1-131-371-00	TANTALUM	10MF	10%	16V	
C084	1-123-617-00	ELECT	10MF	20%	16V	
C085	1-130-493-00	MYLAR	0.068MF	5%	50V	
C086	1-130-481-00	MYLAR	0.0068MF	5%	50V	
C087	1-130-489-00	MYLAR	0.033MF	5%	50V	
C088	1-101-059-00	CERAMIC	510PF	5%	50V	
C089	1-123-618-00	ELECT	22MF	20%	6.3V	
C090	1-123-612-00	ELECT	2.2MF	20%	50V	
C502	1-161-036-00	CERAMIC	0.047MF	20%	25V	
C503	1-123-306-00	ELECT	47MF	20%	10V	
C504	1-102-517-00	CERAMIC	30PF	5%	50V	
C505	1-161-036-00	CERAMIC	0.047MF	20%	25V	
C514	1-102-517-00	CERAMIC	30PF	5%	50V	
C517	1-123-306-00	ELECT	47MF	20%	10V	
C520	1-123-618-00	ELECT	22MF	20%	6.3V	
C521	1-161-036-00	CERAMIC	0.047MF	20%	25V	

CONNECTOR

CN201▲	1-564-001-21	PIN, CONNECTOR 2P
CN202▲	1-564-005-41	PIN, CONNECTOR 6P
CN203▲	1-564-003-00	PIN, CONNECTOR 4P
CN205▲	1-564-003-00	PIN, CONNECTOR 4P
CN206▲	1-560-460-00	PIN, CONNECTOR 4P
CN207▲	1-564-005-00	PIN, CONNECTOR 6P
CN208▲	1-560-467-00	PIN, CONNECTOR 4P
CN210▲	1-564-002-00	PIN, CONNECTOR 3P
CN211▲	1-564-003-00	PIN, CONNECTOR 4P
CN212▲	1-564-003-00	PIN, CONNECTOR 4P
CN218▲	1-564-007-00	PIN, CONNECTOR 8P
CN221▲	1-564-005-21	PIN, CONNECTOR 6P
CN251▲	1-560-895-00	PIN, CONNECTOR 7P
CN255▲	1-564-003-00	PIN, CONNECTOR 4P
CN256▲	1-564-003-41	PIN, CONNECTOR 4P
CN257▲	1-564-002-00	PIN, CONNECTOR 3P
CN258▲	1-564-003-00	PIN, CONNECTOR 4P
CN260▲	1-564-003-00	PIN, CONNECTOR 4P
CN261▲	1-564-001-11	PIN, CONNECTOR 2P
CN266▲	1-564-004-00	PIN, CONNECTOR 5P
CN267▲	1-564-009-00	PIN, CONNECTOR 10P
CN268▲	1-564-007-00	PIN, CONNECTOR 8P
CN269▲	1-564-006-41	PIN, CONNECTOR 7P
CN270▲	1-564-004-00	PIN, CONNECTOR 5P

DIODE

D001	8-719-911-19	DIODE 1SS119
D002	8-719-911-19	DIODE 1SS119
D003	8-719-911-19	DIODE 1SS119
D004	8-719-911-19	DIODE 1SS119
D005	8-719-911-19	DIODE 1SS119
D006	8-719-911-19	DIODE 1SS119
D007	8-719-911-19	DIODE 1SS119
D008	8-719-911-19	DIODE 1SS119
D009	8-719-911-19	DIODE 1SS119
D010	8-719-000-06	DIODE MC921
D011	8-719-000-12	DIODE MC931
D012	8-719-000-06	DIODE MC921
D013	8-719-911-19	DIODE 1SS119
D014	8-719-911-19	DIODE 1SS119
D015	8-719-911-19	DIODE 1SS119
D016	8-719-911-19	DIODE 1SS119
D017	8-719-911-19	DIODE 1SS119
D018	8-719-911-19	DIODE 1SS119
D023	8-719-911-19	DIODE 1SS119
D024	8-719-911-19	DIODE 1SS119
D025	8-719-982-04	DIODE ERB81-004
D026	8-719-000-12	DIODE MC931
D027	8-719-000-12	DIODE MC931
D028	8-719-911-19	DIODE 1SS119
D035	8-719-911-19	DIODE 1SS119
D036	8-719-911-19	DIODE 1SS119
D037	8-719-911-19	DIODE 1SS119
D039	8-719-911-19	DIODE 1SS119
D040	8-719-911-19	DIODE 1SS119
D041	8-719-911-19	DIODE 1SS119
D042	8-719-911-19	DIODE 1SS119
D502	8-719-911-19	DIODE 1SS119
D503	8-719-911-19	DIODE 1SS119

Ref.No.	Part No.	Description	Remark
		IC	
IC001	8-751-941-00	IC CX1948-0	
IC002	8-759-240-71	IC TC4071BP	
IC003	8-759-240-81	IC TC4081BP	
IC004	8-759-240-11	IC TC4011BP	
IC005	8-759-240-53	IC TC4053BP	
IC006	8-759-135-80	IC UPC358C	
IC007	8-741-109-00	IC BX1090	
IC008	8-759-240-13	IC TC4013BP	
IC009	8-759-240-51	IC TC4051BP	
IC012	8-759-240-49	IC TC4049BP	
IC013	8-759-240-91	IC TC4081BP	
IC014	8-759-904-94	IC TL494CN	
IC015	8-741-013-00	IC BX1013	
IC016	8-743-978-00	IC BX3978	
IC017	8-759-240-13	IC TC4013BP	
IC018	8-759-133-90	IC UPC339C	
IC019	8-759-240-13	IC TC4013BP	
IC020	8-759-240-52	IC TC4052BP	
IC021	8-759-240-81	IC TC4081BP	
IC022	8-759-240-01	IC TC4001BP	
IC024	8-759-240-30	IC TC4030BP	
IC025	8-759-245-28	IC TC4528BP	
IC501	8-759-909-23	IC M88421-121M	
IC502	8-759-600-76	IC M50761-632P	
		COIL	
L001	1-408-710-00	COIL, CHOKE	
L002	1-408-711-00	COIL, CHOKE	
L501	1-407-166-XX	MICRO INDUCTOR 56UH	
		TRANSISTOR	
Q001	*>8-729-245-83	TRANSISTOR 2SC2458	
Q002	=>8-729-211-81	TRANSISTOR 2SK118	
Q003	=>8-729-211-81	TRANSISTOR 2SK118	
Q004	=>8-729-211-81	TRANSISTOR 2SK118	
Q005	8-729-900-33	TRANSISTOR DTC144EF	
Q006	8-729-900-33	TRANSISTOR DTC144EF	
Q007	=>8-729-245-83	TRANSISTOR 2SC2458	
Q008	8-729-900-33	TRANSISTOR DTC144EF	
Q009	=>8-729-245-83	TRANSISTOR 2SC2458	
Q010	8-760-523-10	TRANSISTOR 2SA772-23	
Q011	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q012	8-729-900-30	TRANSISTOR DTA144EF	
Q013	8-729-900-33	TRANSISTOR DTC144EF	
Q014	8-729-900-30	TRANSISTOR DTA144EF	
Q015	8-729-900-33	TRANSISTOR DTC144EF	
Q016	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q017	⚠8-729-177-23	TRANSISTOR 2SB772-Q	
Q018	=>8-729-245-83	TRANSISTOR 2SC2458	
Q019	=>8-729-245-83	TRANSISTOR 2SC2458	
Q036	=>8-729-245-83	TRANSISTOR 2SC2458	
Q037	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q038	8-729-900-33	TRANSISTOR DTC144EF	
Q039	8-729-900-33	TRANSISTOR DTC144EF	
Q040	8-729-900-33	TRANSISTOR DTC144EF	
Q041	=>8-729-245-83	TRANSISTOR 2SC2458	

Ref.No.	Part No.	Description	Remark
Q042	8-729-900-33	TRANSISTOR DTC144EF	
Q043	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q048	=>8-729-245-83	TRANSISTOR 2SC2458	
Q049	8-729-900-33	TRANSISTOR DTC144EF	
Q050	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q051	=>8-729-245-83	TRANSISTOR 2SC2458	
Q507	8-729-900-38	TRANSISTOR DTA114EF	
Q508	8-729-900-38	TRANSISTOR DTA114EF	
Q509	8-729-900-38	TRANSISTOR DTA114EF	
Q510	8-729-900-38	TRANSISTOR DTA114EF	
Q511	8-729-900-38	TRANSISTOR DTA114EF	
Q512	8-729-900-38	TRANSISTOR DTA114EF	
Q519	=>8-729-245-83	TRANSISTOR 2SC2458	
Q520	=>8-729-245-83	TRANSISTOR 2SC2458	
Q521	8-729-900-33	TRANSISTOR DTC144EF	
Q522	8-729-900-33	TRANSISTOR DTC144EF	
Q529	=>8-729-245-83	TRANSISTOR 2SC2458	
Q530	=>8-729-245-83	TRANSISTOR 2SC2458	
Q531	=>8-729-245-83	TRANSISTOR 2SC2458	
Q532	8-729-900-45	TRANSISTOR DTC114EF	
Q542	8-729-900-45	TRANSISTOR DTC114EF	
Q543	=>8-729-245-83	TRANSISTOR 2SC2458	

RESISTOR

R001	1-246-445-00	CARBON	68	5%	1/4W
R002	1-247-863-00	CARBON	22K	5%	1/6W
R003	1-247-851-00	CARBON	6.8K	5%	1/6W
R004	1-247-893-00	CARBON	390K	5%	1/6W
R005	1-247-863-00	CARBON	22K	5%	1/6W
R006	1-247-859-00	CARBON	15K	5%	1/6W
R007	1-247-831-00	CARBON	1K	5%	1/6W
R008	1-246-432-00	CARBON	20	5%	1/4W
R009	1-247-859-00	CARBON	15K	5%	1/6W
R010	1-247-846-00	CARBON	4.3K	5%	1/6W
R011	1-247-879-00	CARBON	100K	5%	1/6W
R012	1-247-871-00	CARBON	47K	5%	1/6W
R013	1-247-867-00	CARBON	33K	5%	1/6W
R014	1-247-855-00	CARBON	10K	5%	1/6W
R015	1-247-887-00	CARBON	220K	5%	1/6W
R016	1-247-879-00	CARBON	100K	5%	1/6W
R017	1-247-879-00	CARBON	100K	5%	1/6W
R018	1-247-847-00	CARBON	4.7K	5%	1/6W
R019	1-247-867-00	CARBON	33K	5%	1/6W
R020	1-247-883-00	CARBON	150K	5%	1/6W
R021	1-247-883-00	CARBON	150K	5%	1/6W
R022	1-247-847-00	CARBON	4.7K	5%	1/6W
R023	1-247-855-00	CARBON	10K	5%	1/6W
R024	1-247-879-00	CARBON	100K	5%	1/6W
R025	1-247-879-00	CARBON	100K	5%	1/6W
R026	1-247-847-00	CARBON	4.7K	5%	1/6W
R027	1-247-849-00	CARBON	5.6K	5%	1/6W
R028	1-247-883-00	CARBON	150K	5%	1/6W
R029	1-247-883-00	CARBON	150K	5%	1/6W
R030	1-247-867-00	CARBON	33K	5%	1/6W

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

SS-19

Ref.No.	Part No.	Description				Remark
R033	1-247-846-00	CARBON	4.3K	5%	1/6W	
R034	1-247-846-00	CARBON	4.3K	5%	1/6W	
R035	1-247-867-00	CARBON	33K	5%	1/6W	
R036	1-247-837-00	CARBON	1.8K	5%	1/6W	
R039	1-247-867-00	CARBON	33K	5%	1/6W	
R040	1-247-841-00	CARBON	2.7K	5%	1/6W	
R041	1-247-849-00	CARBON	5.6K	5%	1/6W	
R042	1-247-900-00	CARBON	750K	5%	1/6W	
R043	1-247-850-00	CARBON	6.2K	5%	1/6W	
R044	1-247-847-00	CARBON	4.7K	5%	1/6W	
R045	1-247-847-00	CARBON	4.7K	5%	1/6W	
R046	1-247-848-00	CARBON	5.1K	5%	1/6W	
R047	1-247-843-00	CARBON	3.3K	5%	1/6W	
R048	1-247-831-00	CARBON	1K	5%	1/6W	
R049	1-247-855-00	CARBON	10K	5%	1/6W	
R050	1-247-847-00	CARBON	4.7K	5%	1/6W	
R051	1-247-855-00	CARBON	10K	5%	1/6W	
R052	1-247-871-00	CARBON	47K	5%	1/6W	
R053	1-247-861-00	CARBON	18K	5%	1/6W	
R054	1-247-841-00	CARBON	2.7K	5%	1/6W	
R055	1-247-870-00	CARBON	43K	5%	1/6W	
R056	1-247-879-00	CARBON	100K	5%	1/6W	
R057	1-247-855-00	CARBON	10K	5%	1/6W	
R059	1-247-827-00	CARBON	680	5%	1/6W	
R060	1-247-855-00	CARBON	10K	5%	1/6W	
R061	1-247-855-00	CARBON	10K	5%	1/6W	
R062	1-247-855-00	CARBON	10K	5%	1/6W	
R063	1-247-855-00	CARBON	10K	5%	1/6W	
R064	1-247-867-00	CARBON	33K	5%	1/6W	
R065	1-247-831-00	CARBON	1K	5%	1/6W	
R066	1-247-832-00	CARBON	1.1K	5%	1/6W	
R067	1-247-833-00	CARBON	1.2K	5%	1/6W	
R068	1-247-854-00	CARBON	9.1K	5%	1/6W	
R069	1-247-869-00	CARBON	39K	5%	1/6W	
R070	1-247-865-00	CARBON	27K	5%	1/6W	
R071	1-247-873-00	CARBON	56K	5%	1/6W	
R072	1-247-863-00	CARBON	22K	5%	1/6W	
R073	1-247-862-00	CARBON	20K	5%	1/6W	
R074	1-247-867-00	CARBON	33K	5%	1/6W	
R075	1-247-871-00	CARBON	47K	5%	1/6W	
R076	1-247-878-00	CARBON	91K	5%	1/6W	
R077	1-247-855-00	CARBON	10K	5%	1/6W	
R078	1-247-855-00	CARBON	10K	5%	1/6W	
R079	1-247-855-00	CARBON	10K	5%	1/6W	
R080	1-247-871-00	CARBON	47K	5%	1/6W	
R081	1-247-895-00	CARBON	470K	5%	1/6W	
R082	1-247-879-00	CARBON	100K	5%	1/6W	
R083	1-247-891-00	CARBON	330K	5%	1/6W	
R084	1-247-831-00	CARBON	1K	5%	1/6W	
R085	1-247-879-00	CARBON	100K	5%	1/6W	
R086	1-247-872-00	CARBON	51K	5%	1/6W	
R087	1-247-824-00	CARBON	510	5%	1/6W	
R088 ⚠	1-212-360-00	METAL OXIDE	1	5%	1W	

Ref.No.	Part No.	Description				Remark
R089	1-247-867-00	CARBON	33K	5%	1/6W	
R090	1-247-867-00	CARBON	33K	5%	1/6W	
R091	1-247-882-00	CARBON	130K	5%	1/6W	
R092	1-215-413-00	METAL	47Ω	1%	1/6W	
R093	1-215-467-00	METAL	82K	1%	1/6W	
R094	1-247-849-00	CARBON	5.6K	5%	1/6W	
R095	1-247-839-00	CARBON	2.2K	5%	1/6W	
R096	1-247-818-00	CARBON	30Ω	5%	1/6W	
R097	1-247-847-00	CARBON	4.7K	5%	1/6W	
R098	1-247-845-00	CARBON	3.9K	5%	1/6W	
R099	1-247-865-00	CARBON	27K	5%	1/6W	
R100	1-247-865-00	CARBON	27K	5%	1/6W	
R101	1-247-821-00	CARBON	39Ω	5%	1/6W	
R102	1-247-847-00	CARBON	4.7K	5%	1/6W	
R103	1-247-825-00	CARBON	56Ω	5%	1/6W	
R104	1-247-855-00	CARBON	10K	5%	1/6W	
R105	1-247-855-00	CARBON	10K	5%	1/6W	
R106	1-247-855-00	CARBON	10K	5%	1/6W	
R107	1-247-839-00	CARBON	2.2K	5%	1/6W	
R108	1-247-867-00	CARBON	33K	5%	1/6W	
R109	1-247-871-00	CARBON	47K	5%	1/6W	
R110	1-247-862-00	CARBON	20K	5%	1/6W	
R111	1-247-895-00	CARBON	470K	5%	1/6W	
R112	1-247-891-00	CARBON	330K	5%	1/6W	
R113	1-247-847-00	CARBON	4.7K	5%	1/6W	
R114	1-246-489-00	CARBON	4.7K	5%	1/4W	
R115	1-247-841-00	CARBON	2.7K	5%	1/6W	
R140	1-247-855-00	CARBON	10K	5%	1/6W	
R141	1-247-861-00	CARBON	18K	5%	1/6W	
R142	1-247-871-00	CARBON	47K	5%	1/6W	
R143	1-247-871-00	CARBON	47K	5%	1/6W	
R144	1-247-867-00	CARBON	33K	5%	1/6W	
R145	1-247-879-00	CARBON	100K	5%	1/6W	
R146	1-247-863-00	CARBON	22K	5%	1/6W	
R147	1-247-863-00	CARBON	22K	5%	1/6W	
R151	1-247-893-00	CARBON	390K	5%	1/6W	
R152	1-247-869-00	CARBON	39K	5%	1/6W	
R153	1-247-858-00	CARBON	13K	5%	1/6W	
R154	1-247-855-00	CARBON	10K	5%	1/6W	
R155	1-247-879-00	CARBON	100K	5%	1/6W	
R156	1-247-871-00	CARBON	47K	5%	1/6W	
R157	1-247-855-00	CARBON	10K	5%	1/6W	
R159	1-247-871-00	CARBON	47K	5%	1/6W	
R164	1-247-887-00	CARBON	220K	5%	1/6W	
R165	1-247-901-00	CARBON	820K	5%	1/6W	
R166	1-247-865-00	CARBON	27K	5%	1/6W	
R167	1-247-864-00	CARBON	24K	5%	1/6W	
R168	1-247-900-00	CARBON	750K	5%	1/6W	
R169	1-247-815-00	CARBON	22Ω	5%	1/6W	
R170	1-247-863-00	CARBON	22K	5%	1/6W	
R171	1-247-873-00	CARBON	56K	5%	1/6W	
R172	1-247-837-00	CARBON	1.8K	5%	1/6W	
R173	1-247-863-00	CARBON	22K	5%	1/6W	

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description				Remark
R174	1-215-437-00	METAL	4.7K	1%	1/6W	
R175	1-215-437-00	METAL	4.7K	1%	1/6W	
R176	1-215-437-00	METAL	4.7K	1%	1/6W	
R177	1-215-437-00	METAL	4.7K	1%	1/6W	
R178	1-247-850-00	CARBON	6.2K	5%	1/6W	
R179	1-247-850-00	CARBON	6.2K	5%	1/6W	
R182	1-247-847-00	CARBON	4.7K	5%	1/6W	
R183	1-247-831-00	CARBON	1K	5%	1/6W	
R184	1-247-855-00	CARBON	10K	5%	1/6W	
R185	1-247-855-00	CARBON	10K	5%	1/6W	
R186	1-247-831-00	CARBON	1K	5%	1/6W	
R187	1-247-871-00	CARBON	47K	5%	1/6W	
R188	1-247-863-00	CARBON	22K	5%	1/6W	
R189	1-247-869-00	CARBON	39K	5%	1/6W	
R190	1-247-855-00	CARBON	10K	5%	1/6W	
R191	1-247-842-00	CARBON	3K	5%	1/6W	
R193	1-247-879-00	CARBON	100K	5%	1/6W	
R194	1-247-879-00	CARBON	100K	5%	1/6W	
R195	1-247-886-00	CARBON	200K	5%	1/6W	
R196	1-247-886-00	CARBON	200K	5%	1/6W	
R197	1-247-831-00	CARBON	1K	5%	1/6W	
R231	1-247-879-00	CARBON	100K	5%	1/6W	
R232	1-247-879-00	CARBON	100K	5%	1/6W	
R234	1-247-869-00	CARBON	39K	5%	1/6W	
R235	1-247-855-00	CARBON	10K	5%	1/6W	
R242	1-247-845-00	CARBON	3.9K	5%	1/6W	
R243	1-247-855-00	CARBON	10K	5%	1/6W	
R244	1-247-855-00	CARBON	10K	5%	1/6W	
R245	1-247-855-00	CARBON	10K	5%	1/6W	
R246	1-247-855-00	CARBON	10K	5%	1/6W	
R249	1-247-863-00	CARBON	22K	5%	1/6W	
R250	1-247-868-00	CARBON	36K	5%	1/6W	
R251	1-247-879-00	CARBON	100K	5%	1/6W	
R252	1-247-839-00	CARBON	2.2K	5%	1/6W	
R253	1-247-863-00	CARBON	22K	5%	1/6W	
R527	1-247-827-00	CARBON	680	5%	1/6W	
R538	1-247-867-00	CARBON	33K	5%	1/6W	
R539	1-247-867-00	CARBON	33K	5%	1/6W	
R542	1-247-862-00	CARBON	20K	5%	1/6W	
R543	1-247-831-00	CARBON	1K	5%	1/6W	
R544	1-247-862-00	CARBON	20K	5%	1/6W	
R545	1-247-831-00	CARBON	1K	5%	1/6W	
R546	1-247-879-00	CARBON	100K	5%	1/6W	
R547	1-247-839-00	CARBON	2.2K	5%	1/6W	
R548	1-247-839-00	CARBON	2.2K	5%	1/6W	
R549	1-247-839-00	CARBON	2.2K	5%	1/6W	
R550	1-247-855-00	CARBON	10K	5%	1/6W	
R555	1-247-831-00	CARBON	1K	5%	1/6W	
R557	1-247-839-00	CARBON	2.2K	5%	1/6W	
R558	1-247-855-00	CARBON	10K	5%	1/6W	
R559	1-247-855-00	CARBON	10K	5%	1/6W	
R576	1-247-867-00	CARBON	33K	5%	1/6W	
R577	1-247-871-00	CARBON	47K	5%	1/6W	
R578	1-247-855-00	CARBON	10K	5%	1/6W	
R579	1-247-855-00	CARBON	10K	5%	1/6W	
R580	1-247-871-00	CARBON	47K	5%	1/6W	
R581	1-247-871-00	CARBON	47K	5%	1/6W	
R582	1-247-871-00	CARBON	47K	5%	1/6W	
R584	1-247-867-00	CARBON	33K	5%	1/6W	
R585	1-247-867-00	CARBON	33K	5%	1/6W	
R586	1-247-831-00	CARBON	1K	5%	1/6W	
R587	1-247-831-00	CARBON	1K	5%	1/6W	
R588	1-247-831-00	CARBON	1K	5%	1/6W	
R589	1-247-831-00	CARBON	1K	5%	1/6W	
R592	1-247-867-00	CARBON	33K	5%	1/6W	
R593	1-247-831-00	CARBON	1K	5%	1/6W	
R594	1-247-831-00	CARBON	1K	5%	1/6W	
R595	1-247-867-00	CARBON	33K	5%	1/6W	
R596	1-247-839-00	CARBON	2.2K	5%	1/6W	

VARIABLE RESISTOR

RV001	1-228-750-00	RES, ADJ, CARBON 47K	
RV002	1-228-996-00	RES, ADJ, METAL GLAZE 47K	
RV003	1-228-750-00	RES, ADJ, CARBON 47K	
RV004	1-228-990-00	RES, ADJ, METAL GLAZE 1K	
RV005	1-228-750-00	RES, ADJ, CARBON 47K	
RV006	1-228-750-00	RES, ADJ, CARBON 47K	
RV007	1-228-994-00	RES, ADJ, METAL GLAZE 10K	
RV008	1-228-994-00	RES, ADJ, METAL GLAZE 10K	
RV009	1-228-994-00	RES, ADJ, METAL GLAZE 10K	
RV010	1-228-994-00	RES, ADJ, METAL GLAZE 10K	
RV011	1-228-996-00	RES, ADJ, METAL GLAZE 47K	
RV013	1-228-998-00	RES, ADJ, METAL GLAZE 220K	
RV014	1-228-997-00	RES, ADJ, METAL GLAZE 100K	
RV015	1-228-997-00	RES, ADJ, METAL GLAZE 100K	
RV016	1-228-998-00	RES, ADJ, METAL GLAZE 220K	
RV017	1-228-995-00	RES, ADJ, METAL GLAZE 22K	
RV018	1-228-989-00	RES, ADJ, METAL GLAZE 470	
RV019	1-228-989-00	RES, ADJ, METAL GLAZE 470	
RV020	1-228-998-00	RES, ADJ, METAL GLAZE 220K	
RV021	1-228-998-00	RES, ADJ, METAL GLAZE 220K	
RV022	1-228-999-00	RES, ADJ, METAL GLAZE 470K	
RV023	1-228-999-00	RES, ADJ, METAL GLAZE 470K	
RV024	1-228-998-00	RES, ADJ, METAL GLAZE 220K	
RV025	1-228-999-00	RES, ADJ, METAL GLAZE 470K	
RV026	1-228-998-00	RES, ADJ, METAL GLAZE 220K	
RV027	1-228-999-00	RES, ADJ, METAL GLAZE 470K	
RV028	1-228-999-00	RES, ADJ, METAL GLAZE 470K	

THERMISTOR

TH001	1-800-199-00	THERMISTOR

CRYSTAL

X501	1-527-822-00	OSCILLATOR, CERAMIC

FR-8 | TU-44 | TI-1

Ref.No.	Part No.	Description				Remark
	★:1-610-536-00	FR-8 BOARD **********				
	★:3-674-372-00	HOLDER (A), LED				
		CAPACITOR				
C201	1-102-114-00	CERAMIC	470PF	10%	50V	
C202	1-102-114-00	CERAMIC	470PF	10%	50V	
C203	1-102-114-00	CERAMIC	470PF	10%	50V	
C204	1-102-114-00	CERAMIC	470PF	10%	50V	
		DIODE				
D201	8-719-162-07	DIODE RD6.2E-B				
D202	8-719-162-07	DIODE RD6.2E-B				
D203	8-719-162-07	DIODE RD6.2E-B				
D204	8-719-162-07	DIODE RD6.2E-B				
D205	8-719-162-07	DIODE RD6.2E-B				
D206	8-719-162-07	DIODE RD6.2E-B				
D207	8-719-162-07	DIODE RD6.2E-B				
D208	8-719-162-07	DIODE RD6.2E-B				
D209	8-719-168-07	DIODE RD6.8E-B				
D210	8-719-168-07	DIODE RD6.8E-B				
D211	8-719-113-07	DIODE RD13E-B				
D213	8-719-930-50	DIODE GL-3NG5				
D214	8-719-930-50	DIODE GL-3NG5				
D215	8-719-930-05	DIODE GL-3NG5				
D216	8-719-930-50	DIODE GL-3NG5				
		RESISTOR				
R201	1-247-814-00	CARBON	200	5%	1/6W	
R202	1-247-814-00	CARBON	200	5%	1/6W	
R203	1-247-817-00	CARBON	270	5%	1/6W	
R204	1-247-815-00	CARBON	220	5%	1/6W	
R205	1-247-839-00	CARBON	2.2K	5%	1/6W	
		VARIABLE RESISTOR				
RV201	1-230-174-00	RES, VAR, CARBON 10K				
		SWITCH				
S201	1-553-997-00	SWITCH, KEY BOARD				
S202	1-553-997-00	SWITCH, KEY BOARD				
S203	1-553-997-00	SWITCH, KEY BOARD				
S204	1-553-997-00	SWITCH, KEY BOARD				
S205	1-553-997-00	SWITCH, KEY BOARD				
S206	1-553-997-00	SWITCH, KEY BOARD				
S207	1-553-997-00	SWITCH, KEY BOARD				
S208	1-553-997-00	SWITCH, KEY BOARD				
S209	1-553-997-00	SWITCH, KEY BOARD				
S210	1-553-997-00	SWITCH, KEY BOARD				

Ref.No.	Part No.	Description				Remark
	★:1-610-523-00	TU-44 BOARD **********				
	1-463-470-00	TUNER, ET (BT-896)				
**********						
	★:A-6721-173-A	TI-1 BOARD, COMPLETE **********				
	1-463-471-21	SYNTHESIZER UNIT, FREQUENCY				
	1-464-281-11	RF UNIT, COLOR				
	★:1-555-400-00	CABLE, PIN				
	★:3-682-057-11	SPACER (SMALL)				
	★:3-682-114-00	LID, UPPER, VIF SHIELD CASE				
	★:3-682-115-00	LID, REAR, VIF SHIELD CASE				
	★:3-682-116-00	CASE, VIF SHIELD				
	★:3-682-117-00	CASE, SHIELD, MICRO COMPUTER				
	★:3-682-118-00	LID, UPPER, SHIELD CASE				
	★:3-682-119-00	LID, REAR, SHIELD CASE				
		BATTERY				
BA301	1-528-132-00	BATTERY, STORAGE, NI-CD				
		CAPACITOR				
C104	1-102-106-00	CERAMIC	100PF	10%	50V	
C105	1-102-106-00	CERAMIC	100PF	10%	50V	
C106	1-123-380-00	ELECT	1MF	20%	50V	
C107	1-101-923-00	CERAMIC	0.01MF		25V	
C110	1-123-356-00	ELECT	10MF	20%	16V	
C111	1-123-330-00	ELECT	22MF	20%	16V	
C115	1-123-369-00	ELECT	4.7MF	20%	50V	
C116	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C117	1-123-369-00	ELECT	4.7MF	20%	50V	
C118	1-101-923-00	CERAMIC	0.01MF		25V	
C119	1-123-330-00	ELECT	22MF	20%	16V	
C120	1-161-015-00	CERAMIC	0.015MF	10%	25V	
C121	1-123-307-00	ELECT	100MF	20%	10V	
C122	1-123-307-00	ELECT	100MF	20%	10V	
C123	1-102-110-00	CERAMIC	220PF	10%	50V	
C124	1-102-106-00	CERAMIC	100PF	10%	50V	
C125	1-123-379-00	ELECT	0.47MF	20%	50V	
C126	1-102-106-00	CERAMIC	100PF	10%	50V	
C127	1-102-125-00	CERAMIC	0.0047MF	10%	50V	
C128	1-102-112-00	CERAMIC	330PF	10%	50V	
C129	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C132	1-102-111-00	CERAMIC	270PF	10%	50V	
C133	1-102-111-00	CERAMIC	270PF	10%	50V	
C134	1-102-111-00	CERAMIC	270PF	10%	50V	
C135	1-102-111-00	CERAMIC	270PF	10%	50V	
C137	1-123-356-00	ELECT	10MF	20%	16V	
C139	1-123-330-00	ELECT	22MF	20%	16V	
C201	1-102-121-00	CERAMIC	0.0022MF	10%	50V	
C202	1-102-121-00	CERAMIC	0.0022MF	10%	50V	

Ref.No.	Part No.	Description				Remark
C203	1-102-121-00	CERAMIC	0.0022MF	10%	50V	
C204	1-102-121-00	CERAMIC	0.0022MF	10%	50V	
C205	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C206	1-102-853-00	CERAMIC	15PF	5%	50V	
C207	1-102-525-00	CERAMIC	68PF	5%	50V	
C208	1-123-356-00	ELECT	10MF	20%	16V	
C209	1-102-121-00	CERAMIC	0.0022MF	10%	50V	
C210	1-123-609-00	ELECT	0.33MF	20%	50V	
C211	1-161-013-00	CERAMIC	0.01MF	10%	25V	
C212	1-102-525-00	CERAMIC	68PF	5%	50V	
C213	1-102-121-00	CERAMIC	0.0022MF	10%	50V	
C214	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C215	1-123-305-00	ELECT	33MF	20%	10V	
C216	1-161-021-00	CERAMIC	0.047MF	10%	25V	
C217	1-102-114-00	CERAMIC	470PF	10%	50V	
C218	1-108-589-00	MYLAR	0.027MF	5%	50V	
C228	1-123-307-00	ELECT	100MF	20%	10V	
C240	1-102-074-00	CERAMIC	0.001MF	10%	50V	
C250	1-102-864-00	CERAMIC	5PF	0.5PF	50V	
C251	1-123-305-00	ELECT	33MF	20%	10V	
C252	1-102-107-00	CERAMIC	120PF	10%	50V	
C253	1-123-356-00	ELECT	10MF	20%	16V	
C254	1-123-305-00	ELECT	33MF	20%	10V	
C255	1-123-021-00	ELECT	0.47MF	30%	50V	
C256	1-123-356-00	ELECT	10MF	20%	16V	
C257	1-123-330-00	ELECT	22MF	20%	16V	
C258	1-108-579-00	MYLAR	0.01MF	5%	50V	
C302	1-123-356-00	ELECT	10MF	20%	16V	
C303	1-123-381-00	ELECT	2.2MF	20%	50V	
C304	1-102-125-00	CERAMIC	0.0047MF	10%	50V	
C305	1-123-307-00	ELECT	100MF	20%	10V	

FILTER

CF101	1-527-822-00	OSCILLATOR, CERAMIC
CF201	1-527-943-00	FILTER, CERAMIC
CF202	1-409-332-00	CERAMIC TRAP (4.5MHZ)
CF203	1-409-332-00	CERAMIC TRAP (4.5MHZ)

CONNECTOR

CN501	1-560-892-00	PIN, CONNECTOR 4P
CN502	1-560-893-00	PIN, CONNECTOR 5P
CN503	1-560-892-00	PIN, CONNECTOR 4P
CN504	1-560-890-00	PIN, CONNECTOR 2P
CN505	1-560-898-00	PIN, CONNECTOR 10P
CN506	1-560-893-00	PIN, CONNECTOR 5P
CN508	1-560-890-00	PIN, CONNECTOR 2P

DIODE

D101	8-719-143-07	DIODE RD4.3E-B
D102	8-719-911-19	DIODE 1SS119
D103	=>8-719-901-93	DIODE V19E
D104	=>8-719-901-93	DIODE V19E
D105	8-719-106-07	DIODE RD36E-B
D109	8-719-911-19	DIODE 1SS119

Ref.No.	Part No.	Description	Remark
D110	8-719-911-19	DIODE 1SS119	
D201	8-719-191-07	DIODE RD9.1E-B	
D202	8-719-100-31	DIODE RD5.1E-B3	
D301	8-719-911-19	DIODE 1SS119	
D302	8-719-911-19	DIODE 1SS119	
D303	8-719-911-19	DIODE 1SS119	
D304	8-719-911-19	DIODE 1SS119	
D305	8-719-100-29	DIODE RD5.1E-B1	
D306	8-719-911-19	DIODE 1SS119	
D307	8-719-100-31	DIODE RD5.1E-B3	
D308	8-719-100-31	DIODE RD5.1E-B3	

FILTER

FL101	1-235-227-00	FILTER, LOW PASS	
FL201	1-235-227-00	FILTER, LOW PASS	

IC

IC101	8-759-909-I4	IC MB88401-259M	
IC102	8-759-959-00	IC CX7959	
IC103	8-759-800-65	IC LA7910	
IC104	8-759-157-40	IC UPC574J	
IC106	=>8-759-103-93	IC UPC393C	
IC201	8-752-001-40	IC CX20014	

COIL

L101	1-408-592-00	MICRO INDUCTOR 1.2UH	
L102	1-407-175-XX	MICRO INDUCTOR 330UH	
L103	1-407-693-00	MICRO INDUCTOR 10UH	
L201	1-408-763-00	MICRO INDUCTOR 0.82UH	
L202	1-408-605-00	MICRO INDUCTOR 15UH	
L203	1-408-602-00	MICRO INDUCTOR 8.2UH	
L207	1-408-596-00	MICRO INDUCTOR 2.7UH	
L208	1-408-617-00	MICRO INDUCTOR 150UH	
L209	1-408-604-00	MICRO INDUCTOR 12UH	
L210	1-408-602-00	MICRO INDUCTOR 8.2UH	
L211	1-408-605-00	MICRO INDUCTOR 15UH	
L301	1-408-615-00	MICRO INDUCTOR 100UH	

TRANSISTOR

Q101	=>8-729-245-83	TRANSISTOR 2SC2458	
Q102	=>8-729-245-83	TRANSISTOR 2SC2458	
Q103	=>8-729-245-83	TRANSISTOR 2SC2458	
Q104	8-729-900-33	TRANSISTOR DTC144EF	
Q105	=>8-729-245-83	TRANSISTOR 2SC2458	
Q106	=>8-729-245-83	TRANSISTOR 2SC2458	
Q107	=>8-729-177-43	TRANSISTOR 2SD774	
Q108	8-723-304-00	TRANSISTOR 2SK43-4	
Q109	=>8-729-245-83	TRANSISTOR 2SC2458	
Q201	=>8-729-245-83	TRANSISTOR 2SC2458	
Q202	=>8-729-245-83	TRANSISTOR 2SC2458	
Q203	=>8-729-245-83	TRANSISTOR 2SC2458	
Q204	=>8-729-245-83	TRANSISTOR 2SC2458	

TI-1

Ref.No.	Part No.	Description				Remark
Q206	=>8-729-204-83	TRANSISTOR 2SA1048-GR				
Q207	=>8-729-245-83	TRANSISTOR 2SC2458				
Q208	=>8-729-204-83	TRANSISTOR 2SA1048-GR				
Q301	=>8-729-245-83	TRANSISTOR 2SC2458				
Q302	=>8-729-873-43	TRANSISTOR 2SD734				
Q303	=>8-729-177-43	TRANSISTOR 2SD774				
		RESISTOR				
R101	1-247-855-00	CARBON	10K	5%	1/6W	
R103	1-247-827-00	CARBON	680	5%	1/6W	
R104	1-247-817-00	CARBON	270	5%	1/6W	
R105	1-247-817-00	CARBON	270	5%	1/6W	
R106	1-247-879-00	CARBON	100K	5%	1/6W	
R107	1-247-867-00	CARBON	33K	5%	1/6W	
R109	1-247-895-00	CARBON	470K	5%	1/6W	
R110	1-247-855-00	CARBON	10K	5%	1/6W	
R111	1-247-843-00	CARBON	3.3K	5%	1/6W	
R112	1-247-843-00	CARBON	3.3K	5%	1/6W	
R113	1-246-995-00	CARBON	1.8K	5%	1/8W	F
R114	1-246-413-00	CARBON	3.3	5%	1/8W	
R115	1-247-831-00	CARBON	1K	5%	1/6W	
R116	1-247-831-00	CARBON	1K	5%	1/6W	
R117	1-247-831-00	CARBON	1K	5%	1/6W	
R118	1-247-819-00	CARBON	330	5%	1/6W	
R119	1-246-492-00	CARBON	6.2K	5%	1/4W	
R120	1-247-867-00	CARBON	33K	5%	1/6W	
R121	1-247-867-00	CARBON	33K	5%	1/6W	
R122	1-247-867-00	CARBON	33K	5%	1/6W	
R123	1-247-849-00	CARBON	5.6K	5%	1/6W	
R124	1-247-863-00	CARBON	22K	5%	1/6W	
R125	1-247-863-00	CARBON	22K	5%	1/6W	
R126	1-247-831-00	CARBON	1K	5%	1/6W	
R127	1-247-839-00	CARBON	2.2K	5%	1/6W	
R128	1-247-799-00	CARBON	47	5%	1/6W	
R129 ⚠	1-246-979-00	CARBON	1.2	5%	1/8W	F
R131	1-247-855-00	CARBON	10K	5%	1/6W	
R132	1-247-879-00	CARBON	100K	5%	1/6W	
R133	1-247-839-00	CARBON	2.2K	5%	1/6W	
R134	1-247-847-00	CARBON	4.7K	5%	1/6W	
R135	1-247-879-00	CARBON	100K	5%	1/6W	
R136	1-247-847-00	CARBON	4.7K	5%	1/6W	
R137	1-247-843-00	CARBON	3.3K	5%	1/6W	
R138	1-247-847-00	CARBON	4.7K	5%	1/6W	
R140 ⚠	1-246-979-00	CARBON	1.2	5%	1/8W	F
R141	1-247-837-00	CARBON	1.8K	5%	1/6W	
R143	1-247-841-00	CARBON	2.7K	5%	1/6W	
R144	1-247-831-00	CARBON	1K	5%	1/6W	
R145	1-247-855-00	CARBON	10K	5%	1/6W	
R146	1-247-867-00	CARBON	33K	5%	1/6W	
R147	1-247-867-00	CARBON	33K	5%	1/6W	
R201	1-247-841-00	CARBON	2.7K	5%	1/6W	
R202	1-247-871-00	CARBON	47K	5%	1/6W	
R203	1-247-871-00	CARBON	47K	5%	1/6W	
R204	1-247-856-00	CARBON	11K	5%	1/6W	
R205	1-247-859-00	CARBON	15K	5%	1/6W	
R206	1-247-883-00	CARBON	150K	5%	1/6W	
R207	1-247-869-00	CARBON	39K	5%	1/6W	
R208	1-247-871-00	CARBON	47K	5%	1/6W	
R209	1-247-871-00	CARBON	47K	5%	1/6W	
R211	1-247-805-00	CARBON	82	5%	1/6W	
R212	1-247-883-00	CARBON	150K	5%	1/6W	
R216	1-247-819-00	CARBON	330	5%	1/6W	
R217	1-247-831-00	CARBON	1K	5%	1/6W	
R218	1-247-827-00	CARBON	680	5%	1/6W	
R229	1-247-833-00	CARBON	1.2K	5%	1/6W	
R230 ⚠	1-246-979-00	CARBON	1.2	5%	1/8W	F
R231	1-247-843-00	CARBON	3.3K	5%	1/6W	
R242	1-247-815-00	CARBON	220	5%	1/6W	
R250	1-247-843-00	CARBON	3.3K	5%	1/6W	
R251	1-247-844-00	CARBON	3.6K	5%	1/6W	
R252	1-247-817-00	CARBON	270	5%	1/6W	
R253	1-247-821-00	CARBON	390	5%	1/6W	
R254	1-247-827-00	CARBON	680	5%	1/6W	
R255	1-247-807-00	CARBON	100	5%	1/6W	
R256	1-247-817-00	CARBON	270	5%	1/6W	
R257	1-247-831-00	CARBON	1K	5%	1/6W	
R263	1-247-855-00	CARBON	10K	5%	1/6W	
R264	1-247-857-00	CARBON	12K	5%	1/6W	
R265	1-247-831-00	CARBON	1K	5%	1/6W	
R266	1-247-831-00	CARBON	1K	5%	1/6W	
R267	1-247-871-00	CARBON	47K	5%	1/6W	
R268	1-247-863-00	CARBON	22K	5%	1/6W	
R271	1-247-844-00	CARBON	3.6K	5%	1/6W	
R272	1-247-855-00	CARBON	10K	5%	1/6W	
R273	1-247-841-00	CARBON	2.7K	5%	1/6W	
R301 ⚠	1-217-379-00	FUSIBLE	2.2	5%	1/4W	F
R302	1-247-831-00	CARBON	1K	5%	1/6W	
R303	1-247-838-00	CARBON	2K	5%	1/6W	
R304	1-247-831-00	CARBON	1K	5%	1/6W	
R305	1-247-799-00	CARBON	47	5%	1/6W	
R306	1-247-831-00	CARBON	1K	5%	1/6W	
R307	1-247-839-00	CARBON	2.2K	5%	1/6W	
		VARIABLE RESISTOR				
RV201	1-228-748-00	RES, ADJ, CARBON 10K				
RV202	1-228-748-00	RES, ADJ, CARBON 10K				
RV203	1-228-748-00	RES, ADJ, CARBON 10K				
RV204	1-228-750-00	RES, ADJ, CARBON 47K				
		FILTER				
SF201	1-404-227-51	SAWF				
		TRANSFORMER				
T101	1-447-675-00	TRANSFORMER, DC-DC CONVERTER				
T201	1-404-466-00	VIFT 44MHZ				
T202	1-404-467-00	COIL, VIF				
T203	1-404-480-00	SIFT				

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description			Remark
T204	1-404-467-00	COIL, VIF			
T301	1-447-702-00	TRANSFORMER, CONVERTER			
**********					
	⚠1-610-529-00	PC-7 BOARD **********			
	⚠1-533-146-00	HOLDER, FUSE			
	7-685-862-01	SCREW +BVTT 2.6X6 (S)			
		CAPACITOR			
C004	1-108-377-00	MYLAR	0.01MF	10%	100V
C005	1-125-298-00	ELECT(BLOCK)	10000MF	20%	25V
C022	1-124-648-00	ELECT	1000MF	20%	35V
C023	1-130-516-51	MYLAR	0.01MF	10%	50V
C024	1-123-876-00	ELECT	330MF	20%	25V
C025	1-124-035-00	ELECT	47MF	20%	16V
C026	1-130-516-51	MYLAR	0.01MF	10%	50V
		CONNECTOR			
CN701	⚠1-560-436-00	HORIZONTAL PIN ASSY 3P			
CN702	⚠1-564-030-00	PIN, CONNECTOR 5P			
CN708	⚠1-560-893-00	PIN, CONNECTOR 5P			
		DIODE			
D001	⚠8-719-981-00	DIODE ERC81-004			
D002	⚠8-719-981-00	DIODE ERC81-004			
D003	⚠8-719-981-00	DIODE ERC81-004			
D004	⚠8-719-981-00	DIODE ERC81-004			
D009	⚠8-719-200-23	DIODE 11E2			
D010	⚠8-719-200-23	DIODE 11E2			
		FILTER			
F002	⚠1-532-579-11	FUSE, GLASS TUBE 4A 125V			
		IC			
IC002	⚠8-759-700-24	IC NJM79M12A			
		RESISTOR			
R023	⚠1-217-375-00	FUSIBLE	1	5%	1/4W F
R024	⚠1-217-375-00	FUSIBLE	1	5%	1/4W F
**********					
	⚠A-6723-205-A	PC-8 BOARD, COMPLETE **********			
		CAPACITOR			
C008	1-123-334-00	ELECT	220MF	20%	25V
C009	1-124-035-00	ELECT	470MF	20%	16V
C012	1-123-336-00	ELECT	470MF	20%	25V
C013	1-123-332-00	ELECT	47MF	20%	16V
C015	1-123-332-00	ELECT	47MF	20%	16V

Ref.No.	Part No.	Description			Remark
C016	1-130-516-51	MYLAR	0.01MF	10%	50V
C019	1-123-336-00	ELECT	470MF	20%	25V
C020	1-123-874-00	ELECT	470MF	20%	16V
C031	1-102-975-00	CERAMIC	100PF	10%	50V
C032	1-102-975-00	CERAMIC	100PF	10%	50V
C033	1-102-975-00	CERAMIC	100PF	10%	50V
C037	1-123-332-00	ELECT	47MF	20%	25V
C038	1-123-332-00	ELECT	47MF	20%	25V
C039	1-123-332-00	ELECT	47MF	20%	25V
		CONNECTOR			
CN704	⚠1-560-895-00	PIN, CONNECTOR 7P			
CN705	⚠1-560-892-00	PIN, CONNECTOR 4P			
CN706	⚠1-560-890-00	PIN, CONNECTOR 2P			
CN707	⚠1-560-895-00	PIN, CONNECTOR 7P			
CN709	⚠1-560-890-00	PIN, CONNECTOR 2P			
		DIODE			
D005	8-719-981-01	DIODE ERA81-004			
D006	8-719-981-00	DIODE ERC81-004			
D008	8-719-981-00	DIODE ERC81-004			
D011	⚠8-719-110-07	DIODE RD10E-B			
D012	⚠8-719-113-07	DIODE RD13E-B			
D013	⚠8-719-100-70	DIODE RD15E-B1			
D014	⚠8-719-100-70	DIODE RD15E-B1			
		IC			
IC003	⚠8-759-170-12	IC UPC78M12H			
		COIL			
L001	1-408-945-00	COIL, CHOKE			
L002	1-410-034-11	COIL, CHOKE			
L003	1-408-943-00	COIL, CHOKE			
L004	1-408-944-00	COIL, CHOKE			
L005	1-408-945-00	COIL, CHOKE			
L006	1-408-944-00	COIL, CHOKE			
		TRANSISTOR			
Q001	⚠8-729-103-99	TRANSISTOR 2SB1038			
Q002	⚠8-729-117-53	TRANSISTOR 2SA1175			
Q003	⚠8-729-103-89	TRANSISTOR 2SA1261			
Q005	⚠8-729-117-53	TRANSISTOR 2SA1175			
Q006	⚠8-729-103-89	TRANSISTOR 2SA1261			
Q010	8-729-117-54	TRANSISTOR 2SA1175			
		RESISTOR			
R002	1-247-823-00	CARBON	470	5%	1/6W
R005	1-247-837-00	CARBON	1.8K	5%	1/6W
R009	1-247-823-00	CARBON	470	5%	1/6W
R011	1-247-807-00	CARBON	100	5%	1/6W
R034	1-247-827-00	CARBON	680	5%	1/6W

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

PC-8 | PC-6 | PC-10 | N

Ref.No.	Part No.	Description				Remark
R035	1-247-807-00	CARBON	100	5%	1/6W	
**********						
	⚠1-610-539-00	PC-6 BOARD **********				
	⚠1-533-146-00	HOLDER, FUSE				
		CAPACITOR				
C001	⚠1-102-190-21	CERAMIC	2200PF		150V	
C002	⚠1-102-190-21	CERAMIC	2200PF		150V	
C003	⚠1-130-843-11	FILM	0.1MF	20%	125V	
		CONNECTOR				
CN703	⚠1-560-436-00	HORIZONTAL PIN ASSY 3P				
		FUSE				
F001	⚠1-532-578-11	FUSE, GLASS TUBE 2A 125V				
		RESISTOR				
R001	⚠1-202-723-00	SOLID	2.2M	10%	1/2W	
**********						
	1-611-199-00	PC-10 BOARD **********				
	1-535-486-00	WIRE, TAPE JUMPER				
	3-531-576-11	RIVET				
		CONNECTOR				
C007	1-130-512-00	MYLAR	0.0047MF	10%	50V	
C010	1-123-332-00	ELECT	47MF	20%	25V	
C014	1-130-504-51	MYLAR	0.001MF	10%	50V	
C017	1-130-524-51	MYLAR	0.047MF	10%	50V	
C018	1-130-507-51	MYLAR	0.0018MF	10%	50V	
C036	1-130-524-51	MYLAR	0.047MF	10%	50V	
C040	1-123-380-00	ELECT	1MF	20%	50V	
		IC				
IC1	⚠8-759-908-22	IC BA6121				
		TRANSISTOR				
Q004	=>8-729-245-83	TRANSISTOR 2SC2458				
Q011	=>8-729-245-83	TRANSISTOR 2SC2458				
Q012	8-729-117-54	TRANSISTOR 2SA1175				
Q013	8-729-178-54	TRANSISTOR 2SC2785				
Q014	8-729-117-54	TRANSISTOR 2SA1175				
Q015	8-729-178-54	TRANSISTOR 2SC2785				
Q016	8-729-117-54	TRANSISTOR 2SA1175				
Q017	8-729-178-54	TRANSISTOR 2SC2785				

Ref.No.	Part No.	Description				Remark
		RESISTOR				
R002	1-247-853-00	CARBON	8.2K	5%	1/6W	
R003	1-246-475-00	CARBON	1.2K	5%	1/4W	
R006	1-247-848-00	CARBON	5.1K	5%	1/6W	
R007	1-247-847-00	CARBON	4.7K	5%	1/6W	
R008	1-247-842-00	CARBON	3K	5%	1/6W	
R012	1-247-840-00	CARBON	2.4K	5%	1/6W	
R013	1-247-855-00	CARBON	10K	5%	1/6W	
R014	1-247-867-00	CARBON	33K	5%	1/6W	
R015	1-247-867-00	CARBON	33K	5%	1/6W	
R018	1-247-842-00	CARBON	3K	5%	1/6W	
R021	1-247-842-00	CARBON	3K	5%	1/6W	
R039	1-247-855-00	CARBON	10K	5%	1/6W	
R040	1-247-867-00	CARBON	33K	5%	1/6W	
R041	1-247-867-00	CARBON	33K	5%	1/6W	
R042	1-247-839-00	CARBON	2.2K	5%	1/6W	
R043	1-247-811-00	CARBON	150	5%	1/6W	
R044	1-247-839-00	CARBON	2.2K	5%	1/6W	
R045	1-247-811-00	CARBON	150	5%	1/6W	
R046	1-247-839-00	CARBON	2.2K	5%	1/6W	
R047	1-247-811-00	CARBON	150	5%	1/6W	
R048	1-247-839-00	CARBON	2.2K	5%	1/6W	
R049	1-247-811-00	CARBON	150	5%	1/6W	
R050	1-247-839-00	CARBON	2.2K	5%	1/6W	
R051	1-247-811-00	CARBON	150	5%	1/6W	
R052	1-247-839-00	CARBON	2.2K	5%	1/6W	
R053	1-247-811-00	CARBON	150	5%	1/6W	
R054	1-247-815-00	CARBON	220	5%	1/6W	
		VARIABLE RESISTOR				
RV001	1-228-921-00	RES, ADJ, CARBON 4.7K				
RV002	1-228-920-00	RES, ADJ, CARBON 2.2K				
RV003	1-228-920-00	RES, ADJ, CARBON 2.2K				
**********						
	⚠1-606-794-00	N BOARD *******				
	⚠4-342-117-00	CASE, SHIELD (MAIN), R				
	⚠4-342-118-00	LID, SHIELD CASE, R				
		CAPACITOR				
C001	1-123-617-00	ELECT	10MF	20%	16V	
C002	1-123-617-00	ELECT	10MF	20%	16V	
C003	1-123-617-00	ELECT	10MF	20%	16V	
C004	1-161-019-00	CERAMIC	0.033MF	10%	25V	
C005	1-108-567-00	MYLAR	0.0033MF	5%	50V	
C006	1-123-821-00	ELECT	47MF	20%	16V	
		DIODE				
D001	8-719-110-32	DIODE PH302B				

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description	Remark
		IC	
IC001	8-759-113-73	IC UPC1373H	
		COIL	
L001	1-404-310-00	COIL	
**********			
	★1-610-528-00	TL-3 BOARD **********	
		DIODE	
D104	8-719-930-05	DIODE GL-3HY5	
		RESISTOR	
R105	1-247-817-00	CARBON 270 5% 1/6W	
		SWITCH	
S101	1-553-997-00	SWITCH, KEY BOARD	
**********			
	★A-6725-321-A	TL-1 BOARD, COMPLETE **********	
	★3-662-205-00	HOLDER (E), LED	
		CAPACITOR	
C101	1-123-352-00	ELECT 1MF 20% 50V	
C102	1-123-614-51	ELECT 3.3MF 20% 35V	
C103	1-161-013-00	CERAMIC 0.01MF 10% 25V	
C104	1-123-354-51	ELECT 3.3MF 20% 50V	
C105	1-102-508-00	CERAMIC 10PF 0.5PF 50V	
C106	1-102-508-00	CERAMIC 10PF 0.5PF 50V	
C107	1-102-121-00	CERAMIC 0.0022MF 50V	
C108	1-123-352-00	ELECT 1MF 20% 50V	
C109	1-123-354-51	ELECT 3.3MF 20% 50V	
		CONNECTOR	
CN602	★1-564-015-00	PIN, CONNECTOR 5P	
		COMPOSITION CIRCUIT BLOCK	
CP001	1-232-576-00	COMPOSITION CIRCUIT BLOCK	
CP002	1-232-089-00	COMPOSITION CIRCUIT BLOCK	
		DIODE	
D101	8-719-911-19	DIODE 1SS119	
D103	8-719-191-07	DIODE RD9.1E-B	
D105	8-719-903-05	DIODE GL-3PR5	
D106	8-719-175-07	DIODE RD7.5E-B	
D107	8-719-175-07	DIODE RD7.5E-B	
D108	8-719-175-07	DIODE RD7.5E-B	

Ref.No.	Part No.	Description	Remark
D109	8-719-175-07	DIODE RD7.5E-B	
D110	8-719-175-07	DIODE RD7.5E-B	
D111	8-719-175-07	DIODE RD7.5E-B	
D112	8-719-175-07	DIODE RD7.5E-B	
D113	8-719-175-07	DIODE RD7.5E-B	
D114	8-719-175-07	DIODE RD7.5E-B	
D115	8-719-175-07	DIODE RD7.5E-B	
D116	8-719-175-07	DIODE RD7.5E-B	
		INDICATOR TUBE	
FL101	1-519-300-00	INDICATOR TUBE, FLUORESCENT	
		IC	
IC101	8-759-102-00	IC UPD7519G-067	
		TRANSISTOR	
Q101	8-729-902-11	TRANSISTOR 2SC2021	
		RESISTOR	
R101	1-247-855-00	CARBON 10K 5% 1/6W	
R102	1-247-879-00	CARBON 100K 5% 1/6W	
R103	1-247-875-00	CARBON 68K 5% 1/6W	
R104	1-247-871-00	CARBON 47K 5% 1/6W	
R106	1-247-819-00	CARBON 330 5% 1/6W	
R107	1-247-855-00	CARBON 10K 5% 1/6W	
		SWITCH	
S102	1-554-378-00	SWITCH, SLIDE	
S103	1-553-997-00	SWITCH, KEY BOARD	
S104	1-553-997-00	SWITCH, KEY BOARD	
S105	1-553-997-00	SWITCH, KEY BOARD	
S106	1-553-997-00	SWITCH, KEY BOARD	
S107	1-553-997-00	SWITCH, KEY BOARD	
S108	1-553-997-00	SWITCH, KEY BOARD	
S109	1-553-997-00	SWITCH, KEY BOARD	
S110	1-553-997-00	SWITCH, KEY BOARD	
S111	1-553-997-00	SWITCH, KEY BOARD	
S112	1-553-997-00	SWITCH, KEY BOARD	
S113	1-553-997-00	SWITCH, KEY BOARD	
S114	1-553-997-00	SWITCH, KEY BOARD	
S115	1-553-997-00	SWITCH, KEY BOARD	
S116	1-553-997-00	SWITCH, KEY BOARD	
		CRYSTAL	
X101	1-567-121-00	VIBRATOR, CRYSTAL	
**********			
	★A-6725-322-A	TL-2 BOARD, COMPLETE **********	
	★3-847-723-00	PIN, LEAD	

TL-2 PK-2

Ref.No.	Part No.	Description				Remark
		CAPACITOR				
C201	1-123-612-00	ELECT	2.2MF	20%	50V	
C202	1-123-614-00	ELECT	3.3MF	20%	35V	
C601	1-161-059-00	CERAMIC	0.047MF	10%	50V	
C602	1-123-622-00	ELECT	22MF	20%	16V	
C603	1-102-904-00	CERAMIC	110PF	5%	50V	
C604	1-102-824-00	CERAMIC	470PF	5%	50V	
C605	1-123-611-00	ELECT	1MF	20%	50V	
		FILTER				
CF601	1-527-532-00	OSCILLATOR, CERAMIC				
		CONNECTOR				
CN601	★:1-564-004-00	PIN, CONNECTOR 5P				
CN604	★:1-564-007-00	PIN, CONNECTOR 8P				
CN605	★:1-564-004-00	PIN, CONNECTOR 5P				
CN606	★:1-564-007-00	PIN, CONNECTOR 8P				
CN607	★:1-564-002-00	PIN, CONNECTOR 3P				
CN608	★:1-564-009-00	PIN, CONNECTOR 10P				
CN609	★:1-564-009-00	PIN, CONNECTOR 10P				
		DIODE				
D201	8-719-100-50	DIODE RD9.1E-B1				
D202	8-719-100-23	DIODE RD4.3E-B2				
D601	8-719-100-43	DIODE RD7.5E-B1				
		IC				
IC601	8-759-101-99	IC UPD552C-105				
IC602	=>8-759-103-93	IC UPC393C				
IC603	8-759-240-50	IC TC4050BP				
		TRANSISTOR				
Q201	=>8-729-245-83	TRANSISTOR 2SC2458				
Q202	8-729-117-54	TRANSISTOR 2SA1175				
Q203	8-729-117-54	TRANSISTOR 2SA1175				
Q601	8-729-606-33	TRANSISTOR 2SC2603-F				
Q602	8-729-606-33	TRANSISTOR 2SC2603-F				
Q603	8-729-606-33	TRANSISTOR 2SC2603-F				
Q604	8-729-204-83	TRANSISTOR 2SA1048-GR				
Q605	8-729-204-83	TRANSISTOR 2SA1048-GR				
		RESISTOR				
R201	1-247-843-00	CARBON	3.3K	5%	1/6W	
R202	1-247-871-00	CARBON	47K	5%	1/6W	
R203	1-247-855-00	CARBON	10K	5%	1/6W	
R208	1-247-823-00	CARBON	470	5%	1/6W	
R209	1-247-817-00	CARBON	270	5%	1/6W	
R210	1-247-879-00	CARBON	100K	5%	1/6W	
R211	1-247-840-00	CARBON	2.4K	5%	1/6W	
R605	1-214-163-00	METAL	20K	1%	1/4W	
R606	1-214-163-00	METAL	20K	1%	1/4W	
R607	1-214-163-00	METAL	20K	1%	1/4W	
R608	1-214-163-00	METAL	20K	1%	1/4W	
R609	1-214-156-00	METAL	10K	1%	1/4W	
R610	1-214-156-00	METAL	10K	1%	1/4W	
R611	1-214-156-00	METAL	10K	1%	1/4W	
R612	1-214-156-00	METAL	10K	1%	1/4W	
R613	1-214-163-00	METAL	20K	1%	1/4W	
R614	1-214-147-00	METAL	4.3K	1%	1/4W	
R615	1-247-867-00	CARBON	33K	5%	1/6W	
R616	1-247-867-00	CARBON	33K	5%	1/6W	
R617	1-247-867-00	CARBON	33K	5%	1/6W	
R618	1-247-867-00	CARBON	33K	5%	1/6W	
R619	1-247-867-00	CARBON	33K	5%	1/6W	
R625	1-247-855-00	CARBON	10K	5%	1/6W	
R626	1-247-867-00	CARBON	33K	5%	1/6W	
R627	1-247-867-00	CARBON	33K	5%	1/6W	
R628	1-247-867-00	CARBON	33K	5%	1/6W	
R629	1-247-896-00	CARBON	510K	5%	1/6W	
R630	1-247-879-00	CARBON	100K	5%	1/6W	
R631	1-247-879-00	CARBON	100K	5%	1/6W	

****

★:1-610-530-00 PK-2 BOARD
****

DIODE

D501	8-719-903-05	DIODE GL-3PR5
D514	8-719-113-07	DIODE RD13E-B
D518	8-719-911-19	DIODE 1SS119

RESISTOR

R501	1-247-831-00	CARBON	1K	5%	1/6W
R503	1-247-839-00	CARBON	2.2K	5%	1/6W
R504	1-247-831-00	CARBON	1K	5%	1/6W
R505	1-247-839-00	CARBON	2.2K	5%	1/6W
R506	1-247-819-00	CARBON	330	5%	1/6W

VARIABLE RESISTOR

RV501	1-230-226-00	RES, VAR, CARBON 10K
RV502	1-230-122-00	RES, VAR, CARBON 100K

Ref.No.	Part No.	Description	Remark
		SWITCH	
S501	1-553-997-00	SWITCH, KEY BOARD	
S502	1-553-997-00	SWITCH, KEY BOARD	
S503	1-553-997-00	SWITCH, KEY BOARD	
S504	1-553-997-00	SWITCH, KEY BOARD	
S505	1-553-997-00	SWITCH, KEY BOARD	
S506	1-553-997-00	SWITCH, KEY BOARD	
S507	1-553-997-00	SWITCH, KEY BOARD	
S508	1-553-755-00	SWITCH, SLIDE	
S509	1-553-751-00	SWITCH, SLIDE	
S510	1-553-754-00	SWITCH, SLIDE	
S511	1-553-754-00	SWITCH, SLIDE	
S512	1-553-754-00	SWITCH, SLIDE	
S513	1-553-997-00	SWITCH, KEY BOARD	
S514	1-553-716-00	SWITCH, SLIDE	
**********			
★	1-610-532-00	PK-4 BOARD **********	
		DIODE	
D541	8-719-162-07	DIODE RD6.2E-B	
D542	8-719-162-07	DIODE RD6.2E-B	
D543	8-719-162-07	DIODE RD6.2E-B	
D544	8-719-162-07	DIODE RD6.2E-B	
		SWITCH	
S515	1-553-716-00	SWITCH, SLIDE	
S516	1-553-997-00	SWITCH, KEY BOARD	
S517	1-553-997-00	SWITCH, KEY BOARD	
S518	1-553-997-00	SWITCH, KEY BOARD	
**********			
★	1-610-531-00	PK-3 BOARD **********	
		CAPACITOR	
C561	1-123-617-00	ELECT 10MF 20% 16V	
C562	1-130-471-00	MYLAR 0.001MF 5% 50V	
C563	1-123-647-00	ELECT 47MF 20% 6.3V	
C564	1-102-824-00	CERAMIC 470PF 5% 50V	
C565	1-123-617-00	ELECT 10MF 20% 16V	
C566	1-123-821-00	ELECT 47MF 20% 16V	
C567	1-123-622-00	ELECT 22MF 20% 16V	
C568	1-123-622-00	ELECT 22MF 20% 16V	
		CONNECTOR	
CN801	★1-564-006-11	PIN, CONNECTOR 7P	
CN802	★1-564-007-00	PIN, CONNECTOR 8P	
CN803	★1-564-004-00	PIN, CONNECTOR 5P	
CN804	★1-564-005-31	PIN, CONNECTOR 6P	
CN805	★1-564-003-00	PIN, CONNECTOR 4P	

Ref.No.	Part No.	Description	Remark
CN806	★1-564-003-00	PIN, CONNECTOR 4P	
CN811	★1-564-007-00	PIN, CONNECTOR 8P	
CN812	★1-564-002-00	PIN, CONNECTOR 3P	
CN813	★1-564-006-21	PIN, CONNECTOR 7P	
CN814	★1-564-004-00	PIN, CONNECTOR 5P	
CN815	★1-564-001-11	PIN, CONNECTOR 2P	
CN816	★1-564-007-00	PIN, CONNECTOR 8P	
		DIODE	
D568	8-719-162-07	DIODE RD6.2E-B	
D579	8-719-162-07	DIODE RD6.2E-B	
D580	8-719-911-19	DIODE 1SS119	
D581	8-719-911-19	DIODE 1SS119	
		TRANSISTOR	
Q561	8-729-908-62	TRANSISTOR 2SD786	
Q562	=>8-729-245-83	TRANSISTOR 2SC2458	
		RESISTOR	
R561	1-247-887-00	CARBON 220K 5% 1/6W	
R562	1-247-879-00	CARBON 100K 5% 1/6W	
R563	1-247-855-00	CARBON 10K 5% 1/6W	
R564	1-247-807-00	CARBON 100 5% 1/6W	
R565	1-247-831-00	CARBON 1K 5% 1/6W	
R566	1-247-847-00	CARBON 4.7K 5% 1/6W	
R567	1-247-879-00	CARBON 100K 5% 1/6W	
R568	1-247-831-00	CARBON 1K 5% 1/6W	
R569	1-247-807-00	CARBON 100 5% 1/6W	
R570	1-247-839-00	CARBON 2.2K 5% 1/6W	
**********			
		CS-3 BOARD **********	
		CONNECTOR	
CN301	★1-564-029-00	PIN, CONNECTOR 4P	

Ref.No.	Part No.	Description	Remark
		SWITCH	
S301	1-554-241-00	SWITCH, LEVER (CASSETTE OFF)	
**********			
		CS-4 BOARD	
		**********	
		SWITCH	
S302	1-554-241-00	SWITCH, LEVER (CASSETTE IN)	
**********			
★	1-605-071-00	LM-8 BOARD	
		**********	
		CAPACITOR	
C101	1-161-057-00	CERAMIC 0.033MF 10% 50V	
C102	1-161-057-00	CERAMIC 0.033MF 10% 50V	
		COIL	
L101	1-408-120-00	MICRO INDUCTOR 10UH	
L102	1-408-120-00	MICRO INDUCTOR 10UH	
		RESISTOR	
R101	1-206-479-00	METAL OXIDE 47 5% 2W F	
**********			
★	1-610-533-00	MJ-2 BOARD	
		**********	
		JACK	
J501	1-507-893-00	JACK, MICROPHONE	
**********			
★	1-610-521-00	JK-5 BOARD	
		**********	
		CONNECTOR	
CN111	1-561-703-00	CONNECTOR, DIN 8P	
CN112	1-507-840-00	JACK, MINIATURE	
		DIODE	
D101	8-719-156-07	DIODE RD5.6E-B	
		FUSE	
F101	⚠ 1-532-624-11	FUSE, GLASS TUBE 0.5A 125V	

Ref.No.	Part No.	Description			Remark
★	A-6728-754-A	SS-21 BOARD, COMPLETE			
		**********			
		CAPACITOR			
C038	1-123-661-00	ELECT	100MF	20%	6.3V
C039	1-123-612-00	ELECT	2.2MF	20%	50V
C040	1-123-613-00	ELECT	3.3MF	20%	50V
C041	1-123-611-00	ELECT	1MF	20%	50V
C042	1-123-647-00	ELECT	47MF	20%	6.3V
C043	1-123-612-00	ELECT	2.2MF	20%	50V
C501	1-123-821-00	ELECT	47MF	20%	16V
C506	1-123-820-00	ELECT	33MF	20%	16V
C507	1-123-610-00	ELECT	0.47MF	20%	50V
C508	1-123-611-00	ELECT	1MF	20%	50V
C509	1-161-034-00	CERAMIC	0.022MF	20%	25V
C510	1-161-032-00	CERAMIC	0.01MF	20%	25V
C511	1-161-032-00	CERAMIC	0.01MF	20%	25V
C512	1-161-032-00	CERAMIC	0.01MF	20%	25V
C513	1-130-024-00	FILM	0.0033MF	5%	50V
C515	1-161-036-00	CERAMIC	0.047MF	20%	25V
C516	1-123-611-00	ELECT	1MF	20%	50V
C518	1-123-611-00	ELECT	1MF	20%	50V
C519	1-161-032-00	CERAMIC	0.01MF	20%	25V
		CONNECTOR			
CN209	★ 1-564-027-00	PIN, CONNECTOR 2P			
CN214	★ 1-564-014-00	PIN, CONNECTOR 4P			
CN215	★ 1-564-016-00	PIN, CONNECTOR 6P			
CN216	★ 1-564-016-11	PIN, CONNECTOR 6P			
CN217	★ 1-564-018-11	PIN, CONNECTOR 8P			
CN252	★ 1-564-001-11	PIN, CONNECTOR 2P			
CN253	★ 1-564-002-00	PIN, CONNECTOR 3P			
CN262	★ 1-564-002-00	PIN, CONNECTOR 3P			
CN263	★ 1-564-002-00	PIN, CONNECTOR 3P			
CN264	★ 1-564-002-00	PIN, CONNECTOR 3P			
CN265	★ 1-564-009-00	PIN, CONNECTOR 10P			
		DIODE			
D501	8-719-151-07	DIODE RD5.1E-B			
D508	8-719-911-19	DIODE 1SS119			
		IC			
IC010	8-743-977-00	IC BX-3977			
IC011	8-741-109-10	IC BX-1091			
IC503	⚠ 8-759-907-80	IC EW5603			
IC505	8-759-240-49	IC TC40498P			
		TRANSISTOR			
Q501	8-729-900-33	TRANSISTOR DTC144EF			
Q502	8-729-900-33	TRANSISTOR DTC144EF			
Q503	=> 8-729-245-83	TRANSISTOR 2SC2458			
Q504	=> 8-729-245-83	TRANSISTOR 2SC2458			
Q505	8-729-900-45	TRANSISTOR DTC114EF			

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description	Remark
Q506	=>8-729-204-83	TRANSISTOR 2SA1048-GR	
Q514	8-729-900-39	TRANSISTOR DTA124EF	
Q515	=>8-729-245-83	TRANSISTOR 2SC2458	
Q516	=>8-729-245-83	TRANSISTOR 2SC2458	
Q517	=>8-729-245-83	TRANSISTOR 2SC2458	
Q518	8-729-900-33	TRANSISTOR DTC144EF	
Q533	=>8-729-245-83	TRANSISTOR 2SC2458	
Q534	=>8-729-245-83	TRANSISTOR 2SC2458	
Q535	=>8-729-245-83	TRANSISTOR 2SC2458	
Q536	=>8-729-245-83	TRANSISTOR 2SC2458	
Q537	8-729-900-33	TRANSISTOR DTC144EF	
Q538	8-729-900-33	TRANSISTOR DTC144EF	
Q539	=>8-729-245-83	TRANSISTOR 2SC2458	

RESISTOR

R049	1-247-845-00	CARBON	3.9K	5%	1/6W
R050	1-247-889-00	CARBON	270K	5%	1/6W
R505	1-247-843-00	CARBON	3.3K	5%	1/6W
R506	1-247-843-00	CARBON	3.3K	5%	1/6W
R507	1-247-831-00	CARBON	1K	5%	1/6W
R508	1-247-855-00	CARBON	10K	5%	1/6W
R509	1-247-879-00	CARBON	100K	5%	1/6W
R510	1-247-793-00	CARBON	27	5%	1/6W
R511	1-247-827-00	CARBON	680	5%	1/6W
R512	1-247-871-00	CARBON	47K	5%	1/6W
R515	1-247-831-00	CARBON	1K	5%	1/6W
R516	1-247-879-00	CARBON	100K	5%	1/6W
R517	1-247-875-00	CARBON	68K	5%	1/6W
R528	1-247-871-00	CARBON	47K	5%	1/6W
R529	1-247-809-00	CARBON	120	5%	1/6W
R530	1-247-843-00	CARBON	3.3K	5%	1/6W
R531	1-247-849-00	CARBON	5.6K	5%	1/6W
R532	1-247-829-00	CARBON	820	5%	1/6W
R533	1-247-863-00	CARBON	22K	5%	1/6W
R534	1-247-871-00	CARBON	47K	5%	1/6W
R551	1-247-855-00	CARBON	10K	5%	1/6W
R552	1-247-807-00	CARBON	100	5%	1/6W
R560	1-247-801-00	CARBON	56	5%	1/6W
R561	1-247-879-00	CARBON	100K	5%	1/6W
R562	1-247-841-00	CARBON	2.7K	5%	1/6W
R563	1-247-869-00	CARBON	39K	5%	1/6W
R564	1-247-841-00	CARBON	2.7K	5%	1/6W
R565	1-247-867-00	CARBON	33K	5%	1/6W
R566	1-247-885-00	CARBON	200K	5%	1/6W
R567	1-247-849-00	CARBON	5.6K	5%	1/6W
R568	1-247-831-00	CARBON	1K	5%	1/6W
R569	1-247-875-00	CARBON	68K	5%	1/6W
R570	1-247-815-00	CARBON	220	5%	1/6W
R571	1-247-879-00	CARBON	100K	5%	1/6W
R572	1-247-852-00	CARBON	7.5K	5%	1/6W
R573	1-247-867-00	CARBON	33K	5%	1/6W
R574	1-247-867-00	CARBON	33K	5%	1/6W
R575	1-247-867-00	CARBON	33K	5%	1/6W

Ref.No.	Part No.	Description	Remark
	⚠1-610-535-00	HP-4 BOARD **********	
		DIODE	
D551	8-719-113-07	DIODE RD13E-B	
D552	8-719-113-07	DIODE RD13E-B	
D553	8-719-113-07	DIODE RD13E-B	
D554	8-719-113-07	DIODE RD13E-B	
		JACK	
J551	1-507-833-00	JACK	
**********			
	⚠1-610-534-00	TR-11 BOARD **********	
		TRANSISTOR	
Q727	⚠8-729-831-33	TRANSISTOR 2SD313	
**********			
	⚠1-610-537-00	RV-9 BOARD **********	
		DIODE	
D555	8-719-113-07	DIODE RD13E-B	
D556	8-719-113-07	DIODE RD13E-B	
D557	8-719-113-07	DIODE RD13E-B	
		VARIABLE RESISTOR	
RV551	1-230-175-00	RES, VAR, SLIDE 10K	
**********			
	⚠1-610-401-00	RD-6 BOARD **********	
	⚠3-681-157-00	HOLDER, RD	
		DIODE	
Q551	8-719-921-03	DIODE GP-2S02B	
**********			
	⚠1-610-739-00	RD-9 BOARD **********	
		DIODE	
Q552	8-719-921-03	DIODE GP-2S02B	

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref.No.	Part No.	Description	Remark
		MISCELLANEOUS	
		************	
	⚠1-526-882-11	OUTLET, AC	
	1-536-809-00	TERMINAL BOARD, ANTENNA SELECT	
	1-536-816-00	TERMINAL BOARD, CONNECTOR	
	⚠1-551-964-32	CORD, POWER	
	8-825-508-10	HEAD, FE (FULL ERASE)	
L991	1-464-279-00	SENSOR, S COIL	
L992	1-464-280-00	SENSOR, T COIL	
M902	8-836-049-01	MOTOR, DC (RHF-1909A) (CAPSTAN MOTOR)	
M904	1-541-163-00	MOTOR (LOADING MOTOR)	
PM901	⚠1-454-349-31	SOLENOID, PLUNGER (PINCH)	
PM902	⚠1-454-348-41	SOLENOID, BRAKE PLUNGER	
S991	1-554-374-00	SWITCH, LEVER (CASSETTE IN)	
S992	1-554-374-00	SWITCH, LEVER (REC PROOF)	
S993	1-553-539-00	SWITCH, MICRO (THREADING END)	
S994	1-553-718-00	SWITCH, MICRO (UNTHREADING END)	
T901	⚠1-447-618-11	TRANSFORMER, POWER	

****

ACCESSORIES AND PACKING MATERIALS
****

Part No.	Description	Remark
A-6765-182-A	COMMANDER ASSY	
X-3793-021-0	PARTNERSHIP ASSY	
1-513-379-00	CONVERTER (EAC-25)	
1-551-644-41	CORD, CONNECTION	
1-561-736-11	CORD, CONNECTION (RK-74A)	
3-679-978-00	CASE, ACCESSORY	
3-679-979-00	LID, ACCESSORY CASE	
3-681-190-00	SHEET (LARGE), PROTECTION	
3-682-085-02	INDIVIDUAL CARTON	
3-682-121-00	CUSHION (UPPER)	
3-682-122-00	CUSHION (LOWER)	
3-701-620-00	BAG, POLYETHYLENE	
3-701-630-00	BAG, POLYETHYLENE	
3-773-603-21	MANUAL, INSTRUCTION	
3-773-603-31	MANUAL, INSTRUCTION (CANADIAN MODEL)	
3-795-581-21	INSTRUCTION (US MODEL)	
3-795-740-21	MANUAL, INSTANT INFORMATION	
3-795-741-21	CARD, CUSTOMER INQUIRY (US MODEL)	
4-491-335-21	CARD, WARRANTY (US MODEL)	
4-491-336-21	REGISTRATION (US MODEL)	

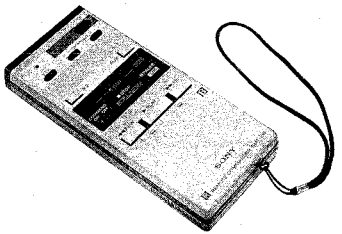
NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

RMT-318

SERVICE MANUAL

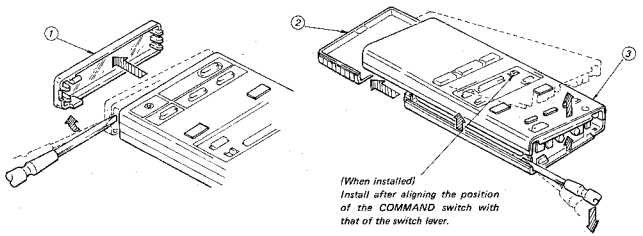


SPECIFICATIONS

Remote Commander RMT-318

Remote control system	Infrared control
Power requirements	3 V dc, 2 size AA batteries (IEC designation R6)
Dimensions	Approx. 65 × 20 × 153 mm (w/h/d) (2⅝ × 13/16 × 6⅛ inches) incl. projecting parts and controls
Weight	Approx. 140 g (5 oz) incl. batteries

DISASSEMBLY



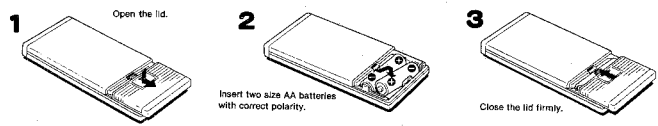
REMOTE COMMANDER

SONY®

1-1. REMOTE CONTROL OPERATION

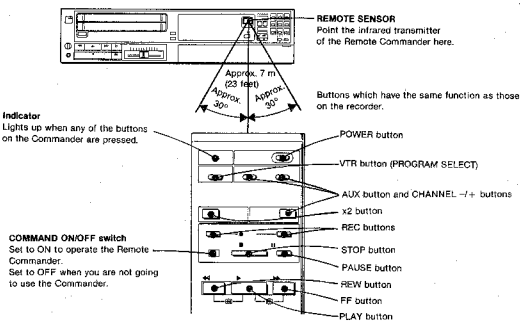
You can control almost all the functions of the SL-2710 video cassette recorder from your armchair using the supplied RMT-318 Remote Commander.

BATTERY INSERTION



Battery life
In normal operation, batteries will last for about six months. If the range of the Remote Commander becomes noticeably shorter, replace the batteries with new ones. When the batteries are exhausted, the indicator will not light when the buttons on the Commander are pressed.
If the Remote Commander is not to be used for a long period of time, remove the batteries to avoid possible damage from battery leakage.

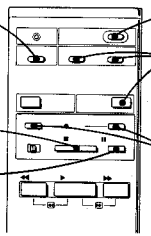
HOW TO USE THE REMOTE COMMANDER


REMOTE SENSOR
Point the infrared transmitter of the Remote Commander here.
Approx. 7 m (23 feet)
Approx. 30°
Approx. 30°
Buttons which have the same function as those on the recorder.
Indicator
Lights up when any of the buttons on the Commander are pressed.
POWER button
VTR button (PROGRAM SELECT)
AUX button and CHANNEL –/+ buttons
x2 button
REC buttons
COMMAND ON/OFF switch
Set to ON to operate the Remote Commander.
Set to OFF when you are not going to use the Commander.
STOP button
PAUSE button
REW button
FF button
PLAY button

Notes
- There should be no obstacles between the Remote Commander and the REMOTE SENSOR of the recorder.
- The shorter the distance between the Remote Commander and the recorder, the wider the angle within which the recorder can be controlled.
- Avoid dropping foreign objects into the case, particularly when replacing batteries.
- Keep the Commander away from extremely hot or humid places.
- Avoid mechanical shock to the Commander.

RECORDING

VTR button
Functions in the same way as the PROGRAM SELECT button on the recorder.
The VTR lamp will indicate the selected mode.



1 Press to turn the power of the recorder on. (Press again to turn it off.)

2 Select the channel.
Press the + button for higher numbered channels and − button for lower numbered channels which are preset on the recorder.
To record the program from the AUX terminal, press the AUX button.

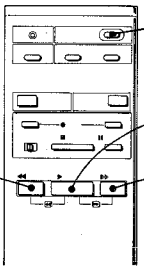
Press to stop recording.

3 Press these two buttons simultaneously.

Press to stop the tape momentarily.
To resume recording, press again.

●This recorder is preset at the factory to receive VHF channel 2 through 13 with the CHANNEL buttons on the Remote Commander. To add UHF channels or CATV channels, or to erase inactive channels, see page 13.

PLAYBACK



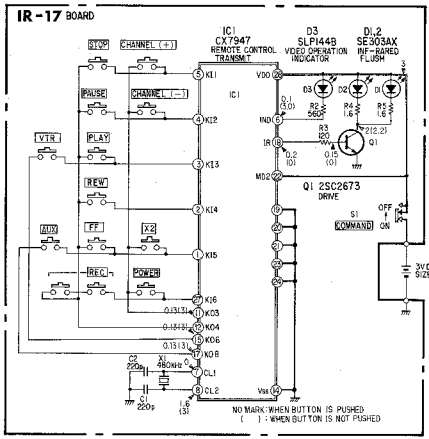
1 Press to turn the power of the recorder on. (To turn it off, press again.)

2 Press.
The playback begins.

◀◀ REW button
Press to rewind the tape.
Used also for Betascan or Beta SkipScan operation in the reverse direction.

▶▶ FF button
Press to advance the tape rapidly.
Used also for Betascan or Beta SkipScan operation in the forward direction.

2. SCHEMATIC DIAGRAM



Note:

- All capacitors are in μF unless otherwise noted. p : μμF 50WV or less are not indicated except for electrolytics.
- All resistors are in ohms, 1/6W unless otherwise noted. k : 1000Ω, M : 1000kΩ

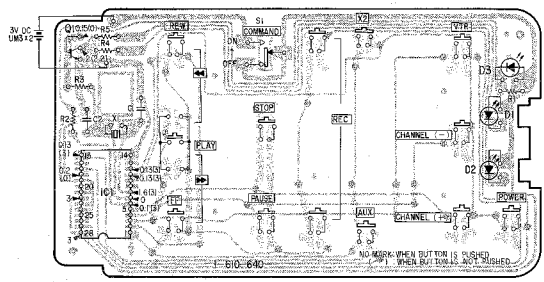
CX7947

2SC2673

SE303AX

SLP144B

3. PRINTED WIRING BOARD

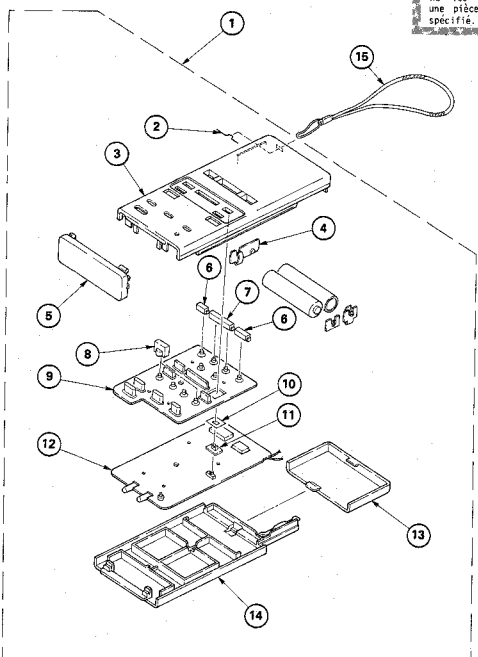


4. EXPLODED VIEW

NOTE:
- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " ♦ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



No.	Part No.	Description	Remark
1	A-6765-182-A	COMMANDER ASSY (RMT-318)	2,3,4,5,6,7,8 9,10,11,12,13,14
2	♦2-290-630-00	STOPPER, HOLDER	
3	X-2290-614-0	CASING ASSY	
4	4-350-925-00	TERMINAL (C), BATTERY	
5	2-290-608-00	PLATE, FROSTED	
6	2-290-633-00	PUSH BUTTON (M)	
7	2-290-632-00	PUSH BUTTON (L)	
8	2-290-626-01	PUSH BUTTON	
9	2-290-645-00	RUBBER (C), CONTACT	
10	2-290-629-00	PLATE, COLOR	
11	2-290-628-00	KNOB, SLIDE	
12	♦1-610-640-00	IR-17 BOARD	
13	2-290-606-00	COVER, BATTERY	
14	2-290-611-00	CASE, LOWER	
15	4-352-958-00	STRAP, HAND	

5. ELECTRICAL PARTS LIST

NOTE:

The components identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

· =>: Due to standardization, interchangeable replacements may be substituted for parts specified in the diagrams.

· Items marked " ♣ " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

· All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

· All resistors are in ohms
· F : nonflammable

CAPACITORS
· MF : μF, PF : μμF

COILS
· MMH : mH, UH : μH

Ref.No.	Part No.	Description			Remark
	♣:1-610-640-00	IR-17 BOARD **********			
	2-290-601-00	TERMINAL (A), BATTERY			
	2-290-602-00	TERMINAL (B), BATTERY			
		CAPACITOR			
C1	1-102-110-00	CERAMIC	220PF	10% 50V	
C2	1-102-110-00	CERAMIC	220PF	10% 50V	
		DIODE			
D1	8-719-193-03	DIODE SE303AX			
D2	8-719-193-03	DIODE SE303AX			
D3	8-719-901-44	DIODE SLP144B			
		IC			
IC1	8-759-902-22	IC CX7947			
		TRANSISTOR			
Q1	8-729-967-32	TRANSISTOR 2SC2673			
		RESISTOR			
R2	1-247-825-00	CARBON	560	5% 1/5W	
R3	1-247-809-00	CARBON	120	5% 1/5W	
R4	1-246-406-00	CARBON	1.6	5% 1/4W	
R5	1-246-406-00	CARBON	1.6	5% 1/4W	
		SWITCH			
SW1	1-553-977-31	SWITCH, SLIDE			
		CRYSTAL			
X1	1-527-476-00	OSCILLATOR, CERAMIC			